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Continuously Logged Sediment Acoustical and Physical Properties Data, R/V Haakon Mosby Cores, Norwegian/Greenland Sea

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13. ABSTRACT *(Maximum 200 words)*

Sediment cores were collected in the Greenland/Norwegian Sea for the purpose of ground-truthing previously collected sidescan imagery. This report presents the results of shore-based analyses performed on the cores. Interpretive results are not included. The unopened cores were continuously logged at 2-cm intervals for compressional-wave velocity and gamma-ray attenuation. Wet bulk density, porosity, water content, and void ratio were calculated from the attenuation measurements. Analytical results are presented in the form of spreadsheets and graphs.

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Continuously-Logged, Sediment Acoustical and physical Properties data, R/V Haakon Mosby Cores, Norwegian/Greenland Sea

Background:

The Naval Research Laboratory (NRL), in cooperation with the University of Bergen (Norway), embarked on a long-term geological/geophysical study of Greenland/Norwegian seafloor processes. In August/September 1995, a joint cruise, partially funded by the U. S. Naval Oceanographic Office, was conducted in the area to "ground-truth" and age-date selected features previously discovered by sidescan imaging. Core analyses were performed in order to address questions of scientific interest. This report is a compilation of these analyses; it does not include interpretative results.

Core Recovery and Handling:

Forty-eight hydroplastic gravity cores were collected at 43 stations (Table 1 and Figure 1), with a recovery of over 100 linear meters of sediment. The core pipe was approximately 5-in diameter (O.D.), PVC cut in 10 ft (3 m) lengths. Each core was cut into 1-m sections and sealed with plastic caps secured with metal hose-clamps. Plastic electrical tape was then wrapped around the cap and clamp to prevent loss of water. The cores were maintained in an upright position until being laid horizontally on the deck for sectioning. Each section was then stored upright for the duration of the cruise. Subsequently, the cores were boxed (upright) and air freighted to NRL for analyses.

Analytical Method:

All the cores but one (HM-76 was not logged) were analyzed at 2 cm intervals for sediment physical and acoustical properties; specifically, compressional-wave (P-wave) velocity, saturated wet bulk density, porosity, water content, and void ratio. The instrument used for these determinations was Texas A&M University's GEOTEK Multisensor Core Logger, a logging device providing continuous measurements of compressional-wave velocity (p-wave), gamma-ray attenuation, and magnetic susceptibility on unopened cores. The cores were logged for p-wave velocity at 500 kHz (Schultheiss and

McPhail, 1989). The p-wave transducers were calibrated to distilled water to 20°C. The gamma-ray attenuations, obtained with a ^{137}Cs source and scintillation tube, were used to determine saturated wet bulk densities (Boyce, 1976; Weber et al., 1997) which, in turn, were used to derive the other parameters, i.e., porosity, water content, and void ratio. The magnetic susceptibility portion of the logger was not operational. As noted above, each core pipe was cut into three 1-meter long sections. Although this size is convenient for shipping, the main reason is that the logger can accommodate core lengths of only 1 meter.

Data Processing:

The raw velocity and attenuation measurements were processed via a program developed by Jia Y. Liu (Texas A&M University) that reads in logger-generated PC file to produce final parameter outputs (see Appendix). In order to make the calculations, a grain density of 2.67 g/cm^3 and a pore-water density of 1.024 g/cm^3 were assumed. In addition, the gamma-ray portion of the logger must be calibrated by measuring a material of known density, in this case, a cylinder of aluminum alloy 6060-T6, 2.71 g/cm^3.

Data Output:

The sediment analyses are presented as: (1) spreadsheets, and (2) profiles showing the downcore variation of each property. Data gaps are readily apparent in both formats, but especially in the velocity profiles. The gaps usually occur at the tops and bottoms of each 1-meter section because of poor coupling between the acoustic transducer and the plastic end-caps. Additional data gaps within sections may be caused by either (1) poor coupling between the transducer and the core pipe, (2) air between the core pipe and the sediment inside, or (3) no sediment. It is also apparent that the uppermost few centimeters of the first section of each core (e.g., 0-5 cm, and sometimes as much as 0-20 cm), is usually unlogged. Failure to log the upper part is due to the soupy nature (i.e., low strength) of the most recently deposited sediment, resulting in; (1) a void caused by sediment compaction, and (2) flow of the sediment when the core is laid on its side for logging; thus, allowing air to get between the sediment and the liner.

Continuing Study:

Select cores are being opened for additional analysis in the laboratory. The applied goals of these studies are (a) to understand, and better exploit, the qualitative and quantitative relation between bottom/ subbottom physical/geoacoustic properties and the backscatter strength variations implied by existing seaMARC and SEAMAP data, and (b) to measure or estimate the stability (e.g., shear strength) of the seafloor materials. A suite of cores (HM41-65) taken on the Bear Island submarine fan (Vogt et al., 1993) are presently being studied. Analytical results will be presented at a special session (High-Latitiude Gas Venting, Hydrates, and Mass Wasting) of the American Geophysical Union (AGU) Spring Meeting in Baltimore, Maryland (1997). In addition to the problem of marine hydrates, other presented papers will deal with geoacoustic and rheological properties of the mudflows and surrounding hemipelagic sediments, sediment mineralogy, sediment fabric, and correlations between acoustic backscatter imagery and sediment core ground-truthing.

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Table 1. Locations (in tenths of degrees) of R/V Haakon Mosby gravity cores. Missing numbers represent box core (7), current meter (1), dredge (1), and heat flow (22) stations. In addition, no sediment was recovered at seven gravity core stations.

core	Longitude East (°)	Latitude North (°)	Corrected Depth (m)
HM 3	7.954	80.068	500
HM 4	7.000	79.750	854
HM 5	6.521	79.190	1465
HM 9	7.969	80.043	507
HM 11	6.136	79.111	1237
HM 12	5.198	79.142	1349
HM 16	5.195	79.138	1346
HM 17	7.076	77.341	2054
HM 19	10.425	75.725	2317
HM 29	14.601	74.848	1605
HM 31	14.673	74.841	1536
HM 32	11.441	74.648	2402
HM 34	11.493	74.626	2362
HM 36	12.238	74.407	2264
HM 37	12.337	74.365	2229
HM 38	12.573	74.365	2213
HM 40	12.728	74.395	2204
HM 41	9.331	73.899	2476
HM 43	9.265	73.845	2455
HM 44	9.240	73.766	2424
HM 46	10.193	73.656	2260
HM 48	8.875	73.512	2459
HM 49	9.431	73.197	2300
HM 50	9.618	73.135	2254
HM 51	9.748	73.187	
HM 52	9.901	73.061	2201
HM 53	10.082	73.007	2167
HM 54	8.780	73.013	2359
HM 56	8.593	73.012	2386
HM 58	11.928	73.021	1762
HM 59	11.920	73.075	1764
HM 60	13.765	73.208	1193
HM 63	13.753	73.371	1253
HM 64	15.958	73.257	478
HM 65	15.833	73.083	470
HM 68	14.567	72.035	1261
HM 69	14.577	72.036	1269
HM 72	14.728	72.008	1255
HM 73	14.662	71.947	1302
HM 74	14.652	71.929	1314
HM 75	14.778	71.919	1245
HM 77	14.417	71.917	1419
HM 78	14.233	71.900	1521
HM 80	14.067	71.940	1506
HM 81	13.790	72.017	1416
HM 86	15.692	72.049	684
HM 87	15.145	70.477	2310


80
75
70
0
10
SVALBARD
(SPITSBERGEN)
SPITSBERGEN
FRACTURE ZONE
FRANZ JOSEF
FJORD
FERMARK
PLATEAU
OB' BANK
TAYMYR BANK
NORTHWIND
GREENLAND
FRACTURE ZONE
KNIPOVICH
RIDGE
BOREAS
ABYSSAL
PLAIN
GREENLAND
ABYSSAL
PLAIN
MOHN
RIDGE
DUMSHAF
ABYSSAL
PLAIN
BEAR
ISLAND
TROUGH
Bjornoya
NORWEGIAN
SEA
Tromsø

FIG. 1

HM 3

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12	1.77	46.20	1.20	54.64	
14	1.82	40.49	1.06	51.36	
16	1.87	36.23	0.94	48.57	
18	1.93	31.39	0.82	45.01	1569
20	1.94	30.46	0.79	44.27	1584
22	1.92	32.28	0.84	45.70	1582
24	1.88	35.69	0.93	48.20	1567
26	1.86	37.50	0.98	49.44	1547
28	1.87	36.51	0.95	48.77	
30	1.83	40.36	1.05	51.27	1553
32	1.73	50.47	1.32	56.82	1514
34	1.71	53.08	1.38	58.05	1504
36	1.66	61.23	1.60	61.49	1495
38	1.66	61.42	1.60	61.56	1499
40	1.81	42.22	1.10	52.40	1539
42	1.71	53.15	1.39	58.09	1507
44	1.73	51.31	1.34	57.23	1511
46	1.75	48.53	1.27	55.86	1513
48	1.73	50.66	1.32	56.91	1506
50	1.74	49.51	1.29	56.35	1513
52	1.77	45.79	1.19	54.42	1517
54	1.79	43.91	1.14	53.38	1525
56	1.80	42.62	1.11	52.64	1534
58	1.81	41.92	1.09	52.22	1531

HM 3

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.84	39.00	1.02	50.42	1536
62	1.82	40.96	1.07	51.65	1532
64	1.86	37.51	0.98	49.44	1548
66	1.80	42.92	1.12	52.81	1531
68	1.78	45.21	1.18	54.11	1523
70	1.79	44.27	1.15	53.58	1520
72	1.80	43.44	1.13	53.11	1530
74	1.81	42.33	1.10	52.47	1535
76	1.79	43.89	1.14	53.37	1527
78	1.89	34.86	0.91	47.61	
80	1.78	44.61	1.16	53.77	1525
82	1.76	47.30	1.23	55.22	1519
84	1.78	45.36	1.18	54.19	1519
86	1.72	52.51	1.37	57.79	1510
88	1.74	50.10	1.31	56.64	1513
90	1.74	50.11	1.31	56.65	1513
92	1.80	42.94	1.12	52.82	1517
94	1.80	43.33	1.13	53.05	
96	1.73	51.40	1.34	57.27	
98	1.81	41.58	1.08	52.02	1549
100					1554
102					
104					
106					
108	1.78	44.61	1.16	53.77	
110	1.74	49.71	1.30	56.45	
112	1.70	54.59	1.42	58.74	
114	1.74	49.63	1.29	56.41	
116	1.79	44.22	1.15	53.56	
118	1.81	41.60	1.08	52.03	

HM 3

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
120	1.82	41.42	1.08	51.92	
122	1.81	42.29	1.10	52.44	
124	1.81	41.49	1.08	51.97	
126	1.79	44.37	1.16	53.64	
128	1.78	45.31	1.18	54.16	
130	1.82	41.28	1.08	51.84	
132	1.85	38.52	1.00	50.11	
134	1.96	29.35	0.77	43.35	
136	1.95	29.56	0.77	43.53	1536
138	1.87	36.23	0.94	48.58	1553
140	1.90	34.00	0.89	46.99	1557
142	1.89	34.84	0.91	47.60	1555
144	1.93	31.53	0.82	45.12	1569
146	1.95	29.52	0.77	43.50	1566
148	1.90	33.78	0.88	46.83	1564
150	1.95	29.81	0.78	43.73	1571
152	1.94	30.93	0.81	44.64	1566
154	1.93	30.96	0.81	44.67	1566
156	1.95	29.50	0.77	43.48	1571
158	1.96	29.43	0.77	43.42	1577
160	1.95	29.77	0.78	43.70	1572
162	1.96	28.85	0.75	42.93	1570
164	1.97	28.09	0.73	42.28	1567
166	1.93	31.61	0.82	45.18	1570
168	1.94	30.36	0.79	44.18	1571
170	1.94	30.50	0.80	44.30	1579
172	2.05	23.11	0.60	37.60	
174	2.00	26.34	0.69	40.71	1590
176	2.00	26.59	0.69	40.94	1591
178	1.94	30.84	0.80	44.58	1565

HM 3

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
180	1.93	31.12	0.81	44.80	1572
182	1.95	30.12	0.79	43.99	1574
184	1.93	31.20	0.81	44.86	1570
186	1.93	31.03	0.81	44.73	1568
188	1.92	31.85	0.83	45.37	1567
190	1.93	31.42	0.82	45.03	1569
192	1.93	31.46	0.82	45.07	1569
194	1.93	31.42	0.82	45.04	1566
196	1.94	30.64	0.80	44.41	1570
198	1.98	28.02	0.73	42.21	1584
200	1.89	34.24	0.89	47.17	1601
202	1.91	32.55	0.85	45.91	1605
204					1612

HM 4

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2	1.49	96.32	2.51	71.52	
4	1.68	58.46	1.52	60.38	
6	1.80	43.26	1.13	53.01	
8	1.82	41.31	1.08	51.85	1549
10	1.78	45.57	1.19	54.30	1535
12	1.77	46.44	1.21	54.77	1512
14	1.64	63.55	1.66	62.36	1498
16	1.61	68.52	1.79	64.12	1494
18	1.62	66.99	1.75	63.59	1493
20	1.59	72.48	1.89	65.40	1491
22	1.62	67.22	1.75	63.67	1491
24	1.63	64.98	1.69	62.89	1493
26	1.63	65.49	1.71	63.07	1491
28	1.66	61.48	1.60	61.58	1492
30	1.66	60.52	1.58	61.21	1492
32	1.65	62.63	1.63	62.02	1493
34	1.65	61.85	1.61	61.73	1494
36	1.63	66.30	1.73	63.35	1495
38	1.66	60.28	1.57	61.11	1500
40	1.70	55.36	1.44	59.07	1503
42	1.72	52.07	1.36	57.59	1507
44	1.70	55.30	1.44	59.05	1504
46	1.67	59.23	1.54	60.70	1496
48	1.68	58.62	1.53	60.45	1496
50	1.65	61.83	1.61	61.72	1495
52	1.64	64.42	1.68	62.68	1490
54	1.61	69.00	1.80	64.27	1488
56	1.65	62.21	1.62	61.86	1492
58	1.68	57.54	1.50	60.01	1496

HM 4

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.61	69.69	1.82	64.50	
62	1.66	61.33	1.60	61.53	1482
64	1.74	49.69	1.30	56.44	1540
66					
68	1.70	55.16	1.44	58.99	
70	1.69	57.03	1.49	59.79	
72	1.75	48.85	1.27	56.02	
74	1.73	51.44	1.34	57.29	
76	1.68	57.27	1.49	59.89	
78	1.72	51.94	1.35	57.52	
80	1.70	54.97	1.43	58.90	
82	1.67	59.16	1.54	60.67	
84	1.63	65.43	1.71	63.05	1498
86	1.70	54.96	1.43	58.90	1498
88	1.70	55.07	1.44	58.95	1500
90	1.70	54.79	1.43	58.82	1499
92	1.67	59.43	1.55	60.78	1493
94	1.68	58.08	1.51	60.23	1494
96	1.67	59.32	1.55	60.73	1495
98	1.75	48.72	1.27	55.95	
100	1.74	49.37	1.29	56.28	
102	1.73	50.73	1.32	56.95	1501
104	1.72	52.23	1.36	57.66	1502
106	1.73	50.80	1.32	56.98	1503
108	1.73	51.38	1.34	57.26	1503
110	1.75	48.39	1.26	55.78	1510
112	1.76	47.74	1.24	55.45	1509
114	1.71	53.02	1.38	58.03	1503
116	1.73	51.65	1.35	57.39	1502
118	1.74	50.03	1.30	56.61	1505
120	1.74	49.20	1.28	56.20	1509

HM 4

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.74	49.32	1.29	56.25	1513
124	1.86	37.59	0.98	49.50	1516
126	1.87	36.11	0.94	48.50	1538
128	1.88	35.40	0.92	48.00	1551
130	1.99	26.74	0.70	41.08	1589
132	1.98	27.65	0.72	41.90	1589
134	1.99	27.11	0.71	41.42	1585
136	1.94	30.50	0.80	44.30	1566
138	1.99	27.18	0.71	41.48	1583
140	1.95	29.54	0.77	43.51	1573
142	1.96	28.95	0.75	43.01	1583
144	2.01	25.84	0.67	40.26	1584
146	1.95	29.88	0.78	43.79	1568
148	1.97	28.10	0.73	42.29	1579
150	1.96	29.03	0.76	43.09	1562
152	1.97	28.18	0.73	42.36	1563
154	1.87	36.65	0.96	48.86	1539
156	2.00	26.51	0.69	40.87	1549
158	1.98	27.86	0.73	42.08	1547
160	1.84	39.02	1.02	50.43	
162	1.97	28.50	0.74	42.63	1559
164	1.98	27.57	0.72	41.82	
166					
168	1.70	55.15	1.44	58.98	
170	1.71	53.39	1.39	58.20	
172	1.77	45.72	1.19	54.38	
174	1.75	48.79	1.27	55.99	
176	1.77	46.61	1.22	54.86	
178	1.78	44.85	1.17	53.91	
180	1.76	47.48	1.24	55.32	
182	1.77	46.18	1.20	54.63	

HM 4

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.77	46.61	1.22	54.86	1462
186	1.79	43.86	1.14	53.35	1422
188	1.83	40.24	1.05	51.20	1470
190	1.80	43.44	1.13	53.11	1425
192	1.85	38.03	0.99	49.79	1506
194	1.80	43.47	1.13	53.13	1509
196	1.72	51.87	1.35	57.49	1497
198	1.69	55.98	1.46	59.34	1493
200	1.69	56.91	1.48	59.74	1472
202	1.78	44.90	1.17	53.93	1509
204	1.76	47.80	1.25	55.48	1508
206	1.72	52.08	1.36	57.59	1502
208	1.75	48.16	1.26	55.67	1502
210	1.74	49.34	1.29	56.27	1495
212	1.81	42.08	1.10	52.32	1527
214	1.84	39.43	1.03	50.69	1531
216	1.85	37.96	0.99	49.74	1524
218	1.83	39.61	1.03	50.81	1527
220	1.74	49.25	1.28	56.22	1482
222	1.73	50.97	1.33	57.06	1502
224	1.68	58.34	1.52	60.34	
226	1.70	55.69	1.45	59.22	1491
228	1.51	92.24	2.40	70.63	

HM 5

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6	1.46	107.69	2.81	73.74	
8	1.53	85.72	2.24	69.09	
10	1.52	89.37	2.33	69.97	
12	1.53	85.35	2.23	69.00	
14	1.50	92.98	2.42	70.80	
16	1.53	86.27	2.25	69.22	1487
18	1.53	85.44	2.23	69.02	1485
20	1.53	86.71	2.26	69.33	1486
22	1.52	89.62	2.34	70.03	1487
24	1.53	86.91	2.27	69.38	1487
26	1.55	82.72	2.16	68.32	1487
28	1.53	86.66	2.26	69.32	1484
30	1.53	87.65	2.29	69.56	1483
32	1.51	92.85	2.42	70.77	1484
34	1.51	90.71	2.37	70.28	1483
36	1.54	82.85	2.16	68.36	1484
38	1.57	78.10	2.04	67.07	1487
40	1.55	80.57	2.10	67.75	1486
42	1.55	81.86	2.13	68.10	1485
44	1.53	85.35	2.23	69.00	1484
46	1.55	82.42	2.15	68.24	1481
48	1.52	90.11	2.35	70.15	1480
50	1.52	88.13	2.30	69.68	1481
52	1.52	88.64	2.31	69.80	1482
54	1.53	86.60	2.26	69.31	1481
56	1.54	83.61	2.18	68.55	1482
58	1.55	82.03	2.14	68.14	1482
60	1.51	90.47	2.36	70.23	1481
62	1.52	90.16	2.35	70.16	1481

HM 5

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
64	1.51	92.31	2.41	70.65	1485
66	1.52	87.69	2.29	69.57	1483
68	1.50	94.04	2.45	71.03	1481
70	1.51	92.09	2.40	70.60	1482
72	1.50	94.97	2.48	71.23	1481
74	1.51	90.42	2.36	70.22	1483
76	1.52	89.73	2.34	70.06	1481
78	1.53	86.17	2.25	69.20	1483
80	1.51	91.78	2.39	70.53	1481
82	1.51	91.61	2.39	70.49	1481
84	1.51	91.32	2.38	70.42	1482
86	1.52	89.97	2.35	70.11	1482
88	1.53	86.38	2.25	69.25	1483
90	1.55	82.20	2.14	68.19	1484
92	1.55	81.60	2.13	68.03	1487
94	1.57	78.23	2.04	67.10	1489
96	1.49	96.09	2.51	71.47	
98	1.55	81.61	2.13	68.03	1509
100	1.55	81.41	2.12	67.98	1507
102					
104	1.43	115.54	3.01	75.08	
106	1.42	121.58	3.17	76.02	
108	1.50	94.79	2.47	71.19	
110	1.54	83.59	2.18	68.55	
112	1.46	104.96	2.74	73.24	
114	1.48	100.36	2.62	72.35	
116	1.52	89.22	2.33	69.94	
118	1.54	83.73	2.18	68.58	
120	1.54	83.62	2.18	68.56	
122	1.60	71.57	1.87	65.11	
124	1.56	80.25	2.09	67.66	
126	1.54	83.04	2.17	68.41	
128	1.57	78.15	2.04	67.08	

HM 5

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
130	1.61	69.82	1.82	64.55	
132	1.59	73.14	1.91	65.60	
134	1.60	71.80	1.87	65.18	
136	1.64	64.29	1.68	62.64	
138	1.60	70.52	1.84	64.77	
140	1.60	72.13	1.88	65.29	
142	1.68	58.13	1.52	60.25	
144	1.68	58.47	1.52	60.39	1492
146	1.68	58.56	1.53	60.43	1494
148	1.66	60.94	1.59	61.37	1492
150	1.65	62.23	1.62	61.87	1493
152	1.63	65.65	1.71	63.12	1486
154	1.63	66.64	1.74	63.47	1487
156	1.66	61.45	1.60	61.57	1494
158	1.66	61.55	1.60	61.61	1496
160	1.71	53.96	1.41	58.45	1503
162	1.68	58.28	1.52	60.31	1488
164	1.86	37.59	0.98	49.50	1492
166	1.73	51.34	1.34	57.24	
168	1.74	49.70	1.30	56.44	1509
170	1.65	62.66	1.63	62.03	1493
172	1.65	62.47	1.63	61.96	1494
174	1.67	59.06	1.54	60.63	1492
176	1.65	62.86	1.64	62.11	1494
178	1.70	54.86	1.43	58.85	1503
180	1.72	52.04	1.36	57.57	1503
182	1.70	55.63	1.45	59.19	1497
184	1.68	58.03	1.51	60.21	1499
186	1.61	69.14	1.80	64.32	1487
188	1.63	66.56	1.74	63.44	1489
190	1.64	63.46	1.65	62.33	1493
192	1.72	52.77	1.38	57.91	1505
194	1.69	56.76	1.48	59.68	

HM 5

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
196	1.69	56.59	1.48	59.61	1534
198	1.73	50.54	1.32	56.85	1533
200					1551
202					
204	1.66	61.66	1.61	61.65	
206	1.69	56.49	1.47	59.56	
208	1.73	51.20	1.34	57.18	
210	1.73	50.45	1.32	56.81	
212	1.79	43.68	1.14	53.25	
214	1.78	45.15	1.18	54.07	
216	1.75	48.41	1.26	55.80	1504
218	1.70	55.00	1.43	58.92	1498
220	1.71	53.88	1.41	58.42	1497
222	1.72	52.96	1.38	58.00	1497
224	1.68	57.93	1.51	60.17	1495
226	1.69	56.64	1.48	59.63	1494
228	1.68	57.40	1.50	59.95	1495
230	1.68	58.28	1.52	60.31	1496
232	1.73	50.44	1.32	56.81	1504
234	1.73	51.54	1.34	57.34	1503
236	1.70	54.89	1.43	58.87	1495
238	1.69	56.08	1.46	59.39	1497
240	1.68	57.47	1.50	59.98	1495
242	1.70	54.91	1.43	58.88	1496
244	1.71	53.98	1.41	58.46	1497
246	1.71	54.24	1.41	58.58	1499
248	1.64	63.55	1.66	62.36	
250	1.59	73.93	1.93	65.84	

HM 9

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14	2.03	24.12	0.63	38.61	
16	2.03	24.43	0.64	38.92	
18	1.91	32.57	0.85	45.92	1567
20	1.89	34.29	0.89	47.20	1550
22	1.89	34.54	0.90	47.38	1551
24	1.95	30.10	0.78	43.97	1566
26	1.97	28.06	0.73	42.25	1583
28	1.99	27.31	0.71	41.59	1589
30	1.96	29.31	0.76	43.32	1585
32	1.94	30.75	0.80	44.50	1574
34	1.95	29.65	0.77	43.60	1578
36	1.98	27.83	0.73	42.05	1582
38	1.93	31.10	0.81	44.78	1577
40	1.92	32.27	0.84	45.69	1562
42	1.89	34.18	0.89	47.13	1561
44	1.94	30.23	0.79	44.08	1576
46	1.94	30.45	0.79	44.25	1575
48	1.94	30.75	0.80	44.50	1572
50	1.94	30.55	0.80	44.34	1573
52	1.94	30.41	0.79	44.22	1574
54	1.97	28.47	0.74	42.60	1583
56	1.96	29.34	0.76	43.34	1583
58	1.96	29.34	0.77	43.34	1580

HM 9

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.95	29.90	0.78	43.81	1580
62	1.97	28.69	0.75	42.80	1580
64	1.96	28.89	0.75	42.96	1580
66	1.95	29.66	0.77	43.61	1577
68	1.95	29.79	0.78	43.71	1576
70	1.96	29.16	0.76	43.19	1577
72	1.96	28.76	0.75	42.86	1576
74	1.98	27.76	0.72	41.99	1574
76	1.95	29.85	0.78	43.76	1575
78	1.98	27.64	0.72	41.88	1578
80	1.95	29.57	0.77	43.53	1580
82	1.96	29.15	0.76	43.19	1578
84	1.96	29.11	0.76	43.15	1574
86	1.96	28.85	0.75	42.93	1575
88	1.96	29.18	0.76	43.21	1574
90	1.95	29.70	0.77	43.64	1576
92	1.94	30.26	0.79	44.11	1577
94	1.98	27.80	0.72	42.03	1579
96	1.94	30.51	0.80	44.31	1577
98	1.95	29.63	0.77	43.59	1577
100	1.97	28.60	0.75	42.71	1576
102	1.94	30.75	0.80	44.50	1578
104	1.96	29.14	0.76	43.18	1574
106	1.95	29.77	0.78	43.70	1572
108	1.96	29.25	0.76	43.27	1573
110	1.95	29.64	0.77	43.59	1576
112	1.96	28.98	0.76	43.04	1578
114	1.97	28.66	0.75	42.77	1583
116	1.92	32.21	0.84	45.65	
118	1.90	33.46	0.87	46.59	
120	1.95	29.88	0.78	43.79	1601

HM 11

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14					
16					
18					
20					
22					
24	1.45	109.06	2.84	73.98	
26	1.45	110.02	2.87	74.15	
28	1.46	105.40	2.75	73.32	
30	1.48	100.22	2.61	72.32	
32	1.51	91.72	2.39	70.52	
34	1.58	76.14	1.99	66.50	
36	1.63	66.08	1.72	63.28	
38	1.67	59.39	1.55	60.76	
40	1.67	60.04	1.57	61.02	1501
42	1.69	56.00	1.46	59.35	1499
44	1.67	59.65	1.56	60.86	1495
46	1.64	64.59	1.68	62.75	1493
48	1.67	59.37	1.55	60.75	1494
50	1.65	61.87	1.61	61.73	1496
52	1.67	60.11	1.57	61.05	1499
54	1.70	55.69	1.45	59.22	1500
56	1.66	60.59	1.58	61.24	1497
58	1.68	58.17	1.52	60.27	1501

HM 11

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.68	57.72	1.50	60.08	1502
62	1.65	62.00	1.62	61.78	1496
64	1.65	62.00	1.62	61.78	1495
66	1.65	63.22	1.65	62.24	1494
68	1.64	64.45	1.68	62.69	1495
70	1.64	64.34	1.68	62.65	1494
72	1.65	62.55	1.63	61.99	1497
74	1.59	74.08	1.93	65.89	1495
76	1.60	71.13	1.85	64.97	1492
78	1.57	76.56	2.00	66.62	1491
80	1.48	100.99	2.63	72.48	1494
82	1.63	66.29	1.73	63.35	1492
84	1.62	67.89	1.77	63.90	1492
86	1.62	68.03	1.77	63.95	1495
88	1.59	73.48	1.92	65.71	1494
90	1.63	65.94	1.72	63.23	1493
92	1.63	65.89	1.72	63.21	1491
94	1.60	70.37	1.83	64.73	1491
96	1.52	88.12	2.30	69.67	
98	1.57	76.23	1.99	66.53	1510
100	1.52	88.23	2.30	69.70	1517
102					
104	1.76	47.55	1.24	55.35	
106	1.72	52.30	1.36	57.69	
108	1.78	44.75	1.17	53.85	1527
110	1.80	43.00	1.12	52.86	1437
112	1.80	42.82	1.12	52.75	1548
114	1.82	40.91	1.07	51.61	1548
116	1.83	40.33	1.05	51.26	1550
118	1.82	40.89	1.07	51.60	1546
120	1.82	40.99	1.07	51.66	1545

HM 11

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.82	41.17	1.07	51.77	1542
124	1.83	40.16	1.05	51.15	1541
126	1.82	41.08	1.07	51.72	1543
128	1.82	40.88	1.07	51.59	1542
130	1.80	42.54	1.11	52.59	1543
132	1.83	39.56	1.03	50.77	1543
134	1.84	38.67	1.01	50.21	1543
136	1.84	38.74	1.01	50.25	1539
138	1.84	39.39	1.03	50.67	1541
140	1.83	39.86	1.04	50.96	1544
142	1.83	40.18	1.05	51.17	1544
144	1.82	40.82	1.06	51.56	1543
146	1.84	39.09	1.02	50.48	1538
148	1.83	40.43	1.05	51.32	1538
150	1.81	41.79	1.09	52.15	1541
152	1.82	40.92	1.07	51.62	1540
154	1.82	41.27	1.08	51.83	1542
156	1.84	38.64	1.01	50.19	1542
158	1.83	39.55	1.03	50.77	1543
160	1.81	41.53	1.08	51.99	1544
162	1.82	40.60	1.06	51.43	1543
164	1.85	38.51	1.00	50.10	1545
166	1.82	40.88	1.07	51.60	1545
168	1.83	40.31	1.05	51.25	1547
170	1.84	39.18	1.02	50.53	1546
172	1.82	40.54	1.06	51.39	1544
174	1.83	39.73	1.04	50.88	1544
176	1.85	37.82	0.99	49.65	1546
178	1.83	40.18	1.05	51.16	1546
180	1.84	39.37	1.03	50.65	1547
182	1.81	41.69	1.09	52.09	1536

HM 11

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.84	39.18	1.02	50.54	1546
186	1.85	37.93	0.99	49.72	1546
188	1.85	38.51	1.00	50.11	1548
190	1.86	36.84	0.96	48.99	1550
192	1.84	38.88	1.01	50.34	1551
194	1.88	35.47	0.92	48.04	1553
196	1.78	45.25	1.18	54.12	
198	1.86	36.72	0.96	48.91	
200	1.88	35.78	0.93	48.27	1544
202					
204					
206					
208	1.43	116.75	3.04	75.27	
210	1.49	98.29	2.56	71.93	
212	1.48	101.22	2.64	72.52	
214	1.41	123.70	3.23	76.33	
216	1.48	99.30	2.59	72.14	1482
218	1.44	113.23	2.95	74.70	1484
220	1.42	121.11	3.16	75.95	
222	1.46	104.87	2.73	73.22	
224	1.54	85.03	2.22	68.92	1459
226	1.55	82.49	2.15	68.26	1465
228	1.53	86.09	2.24	69.18	1473
230	1.49	98.49	2.57	71.97	1484
232	1.53	86.76	2.26	69.35	1459
234	1.54	84.52	2.20	68.79	1485
236	1.52	87.90	2.29	69.62	1484
238					1473
240	1.53	85.35	2.23	69.00	1482
242	1.52	89.06	2.32	69.90	1481
244	1.51	91.36	2.38	70.43	1479

HM 11

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.48	98.77	2.58	72.03	1480
248	1.51	91.40	2.38	70.44	1480
250	1.53	85.46	2.23	69.02	1481
252	1.52	88.93	2.32	69.87	1479
254	1.50	93.56	2.44	70.93	1478
256	1.47	102.34	2.67	72.74	1479
258	1.53	86.36	2.25	69.25	1481
260	1.54	83.12	2.17	68.43	1480
262	1.54	83.04	2.17	68.41	1479
264	1.57	76.72	2.00	66.67	1480
266	1.56	79.40	2.07	67.43	1479
268	1.56	78.71	2.05	67.24	1481
270	1.60	70.39	1.84	64.73	1483
272	1.54	85.00	2.22	68.91	
274	1.58	75.50	1.97	66.31	1514
276	1.59	73.19	1.91	65.62	1508
278					1504

HM 12

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12	1.43	116.81	3.05	75.28	
14	1.47	102.66	2.68	72.80	1496
16	1.49	97.06	2.53	71.68	1499
18	1.46	107.90	2.81	73.78	1485
20	1.47	101.80	2.65	72.63	1492
22	1.47	102.02	2.66	72.68	1489
24	1.46	106.27	2.77	73.48	1488
26	1.47	103.37	2.70	72.94	1491
28	1.51	92.09	2.40	70.60	1489
30	1.48	100.70	2.63	72.42	1488
32	1.47	102.81	2.68	72.83	1487
34	1.48	101.60	2.65	72.60	1487
36	1.50	95.18	2.48	71.28	1488
38	1.49	98.00	2.56	71.87	1488
40	1.46	105.47	2.75	73.33	1487
42	1.49	95.93	2.50	71.44	1485
44	1.50	94.22	2.46	71.07	1486
46	1.50	94.56	2.47	71.15	1486
48	1.47	104.58	2.73	73.17	1486
50	1.50	94.55	2.47	71.14	1486
52	1.49	96.39	2.51	71.54	1485
54	1.49	95.78	2.50	71.41	1486
56	1.49	98.34	2.56	71.94	1484
58	1.49	98.01	2.56	71.88	1486

HM 12

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.49	96.47	2.52	71.55	1487
62	1.49	96.65	2.52	71.59	1490
64	1.49	95.93	2.50	71.44	1492
66	1.52	89.82	2.34	70.08	1490
68	1.49	98.04	2.56	71.88	1487
70	1.51	91.55	2.39	70.48	1486
72	1.51	92.69	2.42	70.73	1485
74	1.49	96.17	2.51	71.49	1486
76	1.51	91.58	2.39	70.48	1486
78	1.49	97.35	2.54	71.74	1485
80	1.48	99.40	2.59	72.16	1483
82	1.49	96.89	2.53	71.64	1483
84	1.48	99.74	2.60	72.23	1483
86	1.49	96.19	2.51	71.49	1484
88	1.51	92.56	2.41	70.70	1484
90	1.48	98.84	2.58	72.05	1484
92	1.52	89.28	2.33	69.95	1485
94	1.48	99.53	2.60	72.18	1485
96	1.42	119.93	3.13	75.77	
98	1.49	97.01	2.53	71.67	1504
100	1.51	90.84	2.37	70.31	1507
102					
104					
106					
108	1.43	118.74	3.10	75.59	
110	1.47	101.72	2.65	72.62	
112	1.50	93.52	2.44	70.92	
114	1.47	101.72	2.65	72.62	
116	1.43	119.06	3.10	75.64	
118	1.48	99.72	2.60	72.22	
120	1.45	109.24	2.85	74.01	

HM 12

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.48	99.62	2.60	72.20	
124	1.44	112.19	2.93	74.52	
126	1.50	93.11	2.43	70.83	
128	1.52	89.38	2.33	69.97	
130	1.50	93.31	2.43	70.87	
132	1.52	89.45	2.33	69.99	
134	1.52	89.31	2.33	69.96	1477
136	1.48	100.13	2.61	72.31	1480
138	1.46	107.53	2.80	73.71	1482
140	1.46	105.17	2.74	73.28	1483
142	1.47	101.72	2.65	72.62	1484
144	1.48	99.40	2.59	72.16	1482
146	1.47	102.24	2.67	72.72	1481
148	1.46	104.92	2.74	73.23	1481
150	1.48	100.56	2.62	72.39	1480
152	1.45	108.83	2.84	73.94	1481
154	1.44	114.58	2.99	74.92	1481
156	1.46	107.68	2.81	73.74	1481
158	1.49	97.62	2.55	71.79	1482
160	1.49	98.41	2.57	71.96	1481
162	1.46	105.48	2.75	73.33	1481
164	1.47	104.10	2.71	73.08	1481
166	1.44	112.14	2.92	74.52	1480
168	1.49	96.60	2.52	71.58	1479
170	1.51	91.17	2.38	70.39	1482
172	1.50	93.18	2.43	70.84	1482
174	1.50	93.78	2.45	70.97	1481
176	1.49	97.57	2.54	71.78	1480
178	1.51	92.24	2.41	70.63	1480
180	1.49	96.68	2.52	71.60	1480
182	1.50	95.21	2.48	71.29	1481

HM 12

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.51	92.59	2.41	70.71	1480
186	1.48	98.99	2.58	72.07	1481
188	1.52	89.15	2.32	69.92	1481
190	1.48	99.00	2.58	72.08	1481
192	1.53	86.81	2.26	69.36	1484
194	1.52	89.86	2.34	70.09	1485
196	1.45	110.99	2.89	74.32	
198	1.50	94.64	2.47	71.16	1501
200	1.42	119.33	3.11	75.68	1507
202					
204					
206					
208					
210	1.41	126.59	3.30	76.75	
212	1.46	105.27	2.74	73.30	
214	1.42	122.50	3.19	76.16	
216	1.37	143.40	3.74	78.90	
218	1.50	93.35	2.43	70.88	
220	1.48	100.84	2.63	72.45	
222	1.48	98.90	2.58	72.06	
224	1.49	98.11	2.56	71.90	
226	1.51	90.65	2.36	70.27	
228	1.50	95.61	2.49	71.37	
230	1.49	95.86	2.50	71.42	
232	1.48	99.83	2.60	72.25	
234	1.53	85.83	2.24	69.12	
236	1.52	89.14	2.32	69.92	
238	1.50	93.84	2.45	70.99	
240	1.48	98.67	2.57	72.01	
242	1.52	87.86	2.29	69.61	
244	1.51	91.39	2.38	70.44	

HM 12

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.49	97.92	2.55	71.86	
248	1.50	93.16	2.43	70.84	
250	1.54	83.45	2.18	68.51	
252	1.52	89.62	2.34	70.03	1482
254	1.49	98.10	2.56	71.89	1480
256	1.50	95.57	2.49	71.36	1481
258	1.50	95.03	2.48	71.25	1480
260	1.48	101.10	2.64	72.50	1481
262	1.51	92.38	2.41	70.66	1480
264	1.49	95.70	2.50	71.39	1479
266	1.47	104.09	2.71	73.08	1479
268	1.49	97.35	2.54	71.74	1479
270	1.50	94.89	2.47	71.22	1480
272	1.48	98.60	2.57	72.00	1479
274	1.48	101.39	2.64	72.55	1479
276	1.49	96.46	2.52	71.55	1480
278	1.51	91.76	2.39	70.52	1480
280	1.49	96.05	2.50	71.46	1480
282	1.46	107.56	2.80	73.71	1479
284	1.49	98.52	2.57	71.98	1480
286	1.49	98.37	2.56	71.95	1480
288	1.48	98.83	2.58	72.04	1480
290	1.51	90.94	2.37	70.34	1481
292	1.48	100.30	2.62	72.34	1480
294	1.51	91.89	2.40	70.55	

HM 16

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12	1.46	106.09	2.77	73.45	
14	1.45	109.80	2.86	74.11	
16	1.46	105.96	2.76	73.42	
18	1.46	105.02	2.74	73.25	1480
20	1.51	91.82	2.39	70.54	1488
22	1.52	89.93	2.34	70.10	1486
24	1.49	97.35	2.54	71.74	1486
26	1.51	92.00	2.40	70.58	1487
28	1.53	86.65	2.26	69.32	1489
30	1.54	83.77	2.18	68.59	1491
32	1.52	89.07	2.32	69.90	1487
34	1.51	91.17	2.38	70.39	1486
36	1.49	97.06	2.53	71.68	1485
38	1.50	94.53	2.46	71.14	1485
40	1.48	101.13	2.64	72.50	1487
42	1.49	98.35	2.56	71.94	1486
44	1.46	105.28	2.75	73.30	1483
46	1.49	98.41	2.57	71.96	1484
48	1.49	97.25	2.54	71.72	1482
50	1.47	104.37	2.72	73.13	1482
52	1.47	101.89	2.66	72.65	1482
54	1.48	100.48	2.62	72.38	1482
56	1.46	107.60	2.81	73.72	1481
58	1.46	106.49	2.78	73.52	1481

HM 16

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.50	94.14	2.45	71.05	1482
62	1.48	99.12	2.58	72.10	1481
64	1.49	97.89	2.55	71.85	1481
66	1.50	95.06	2.48	71.25	1480
68	1.49	96.59	2.52	71.58	1479
70	1.51	91.76	2.39	70.52	1481
72	1.49	95.87	2.50	71.43	1481
74	1.50	95.67	2.49	71.38	1481
76	1.51	91.38	2.38	70.44	1481
78	1.48	101.49	2.65	72.57	1481
80	1.47	103.39	2.70	72.94	1480
82	1.48	101.41	2.64	72.56	1482
84	1.50	95.54	2.49	71.36	1482
86	1.48	99.92	2.61	72.26	1481
88	1.47	104.08	2.71	73.07	1480
90	1.48	101.32	2.64	72.54	1480
92	1.45	109.46	2.85	74.05	1481
94	1.44	114.32	2.98	74.88	
96	1.47	102.93	2.68	72.85	1500
98					1504
100					
102					1509
104					1500
106					
108					1486
110	1.53	87.44	2.28	69.51	1485
112	1.54	84.58	2.21	68.80	1484
114	1.51	90.61	2.36	70.26	1481
116	1.50	94.20	2.46	71.07	1480
118	1.52	89.18	2.33	69.93	1482
120	1.49	97.02	2.53	71.67	1478

HM 16

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.49	98.25	2.56	71.92	1478
124	1.53	87.04	2.27	69.42	1481
126	1.53	86.37	2.25	69.25	1482
128	1.54	84.95	2.21	68.89	1483
130	1.53	87.31	2.28	69.48	1482
132	1.55	81.86	2.13	68.10	1483
134	1.53	85.85	2.24	69.12	1483
136	1.52	88.34	2.30	69.73	1483
138	1.52	88.59	2.31	69.79	1484
140	1.50	92.98	2.42	70.80	1482
142	1.49	95.95	2.50	71.44	1481
144	1.48	98.78	2.58	72.03	1481
146	1.51	92.70	2.42	70.74	1482
148	1.50	93.16	2.43	70.84	1481
150	1.46	108.11	2.82	73.81	1481
152	1.50	93.64	2.44	70.94	1481
154	1.53	85.75	2.24	69.10	1484
156	1.47	101.76	2.65	72.63	1483
158	1.49	97.71	2.55	71.81	1480
160	1.48	99.06	2.58	72.09	1482
162	1.49	97.68	2.55	71.81	1481
164	1.50	93.30	2.43	70.87	1480
166	1.49	97.50	2.54	71.77	1479
168	1.49	98.01	2.56	71.87	1480
170	1.51	91.12	2.38	70.38	1481
172	1.50	93.30	2.43	70.87	1480
174	1.50	93.16	2.43	70.84	1480
176	1.49	97.46	2.54	71.76	1479
178	1.47	103.40	2.70	72.94	1480
180	1.49	96.17	2.51	71.49	1481
182	1.50	94.03	2.45	71.03	1481

HM 16

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.48	100.98	2.63	72.47	1480
186	1.46	106.54	2.78	73.53	1480
188	1.47	104.42	2.72	73.14	1480
190	1.49	96.83	2.52	71.63	1480
192	1.47	103.00	2.69	72.87	1482
194	1.45	108.55	2.83	73.89	
196	1.42	119.34	3.11	75.68	1492
198	1.46	106.29	2.77	73.48	1499
200					1497
202					
204					
206					
208	1.45	110.81	2.89	74.29	
210	1.46	106.81	2.79	73.58	
212	1.46	107.97	2.82	73.79	
214	1.47	102.95	2.68	72.86	
216	1.46	107.03	2.79	73.62	
218	1.47	102.10	2.66	72.69	
220	1.51	91.79	2.39	70.53	
222	1.50	95.34	2.49	71.31	
224	1.49	95.94	2.50	71.44	
226	1.48	98.83	2.58	72.04	
228	1.47	104.45	2.72	73.14	
230	1.46	105.40	2.75	73.32	1474
232	1.46	107.28	2.80	73.67	1484
234	1.52	87.81	2.29	69.60	1485
236	1.50	93.52	2.44	70.92	1483
238	1.47	102.16	2.66	72.71	1479
240	1.49	97.55	2.54	71.78	1479
242	1.52	90.11	2.35	70.15	1481
244	1.54	83.35	2.17	68.49	1483

HM 16

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.50	93.03	2.43	70.81	1480
248	1.51	90.75	2.37	70.29	1481
250	1.52	89.43	2.33	69.99	1481
252	1.50	94.80	2.47	71.20	1480
254	1.50	93.71	2.44	70.96	1481
256	1.52	89.39	2.33	69.98	1481
258	1.50	95.23	2.48	71.29	1481
260	1.52	87.79	2.29	69.60	1482
262	1.51	90.95	2.37	70.34	1481
264	1.51	90.87	2.37	70.32	1481
266	1.53	86.20	2.25	69.21	1483
268	1.55	82.21	2.14	68.19	1482
270	1.55	82.58	2.15	68.29	1484
272	1.55	81.69	2.13	68.05	1485
274	1.57	76.26	1.99	66.54	1486
276	1.58	74.87	1.95	66.13	1488
278	1.59	72.54	1.89	65.42	1488
280	1.60	72.19	1.88	65.31	1487
282	1.61	69.32	1.81	64.38	1490
284	1.61	69.12	1.80	64.32	1487
286	1.59	73.93	1.93	65.84	
288	1.62	67.86	1.77	63.89	1511
290	1.65	62.16	1.62	61.84	

HM 17

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14					
16	1.40	131.16	3.42	77.37	
18	1.41	126.16	3.29	76.69	
20	1.40	128.17	3.34	76.97	
22	1.44	113.47	2.96	74.74	
24	1.42	120.77	3.15	75.90	
26	1.41	124.50	3.25	76.45	
28	1.43	115.34	3.01	75.05	
30	1.53	87.05	2.27	69.42	
32	1.48	101.05	2.63	72.49	
34	1.44	114.70	2.99	74.94	
36	1.42	120.58	3.14	75.87	
38	1.44	115.24	3.00	75.03	
40	1.44	111.92	2.92	74.48	
42	1.46	106.63	2.78	73.55	1490
44	1.49	95.92	2.50	71.44	1491
46	1.48	98.63	2.57	72.00	1484
48	1.40	129.80	3.38	77.19	1485
50	1.47	102.31	2.67	72.73	1485
52	1.48	98.96	2.58	72.07	1481
54	1.49	97.76	2.55	71.82	1479
56	1.48	99.47	2.59	72.17	1479
58	1.46	107.12	2.79	73.64	1483
60	1.49	95.82	2.50	71.42	1479

HM 17

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
62	1.50	92.99	2.42	70.80	1479
64	1.47	101.93	2.66	72.66	1481
66	1.51	90.96	2.37	70.34	1484
68	1.54	84.74	2.21	68.84	1486
70	1.52	87.89	2.29	69.62	1491
72	1.49	98.55	2.57	71.99	1479
74	1.48	99.28	2.59	72.13	1478
76	1.50	94.72	2.47	71.18	1479
78	1.49	98.20	2.56	71.91	1477
80	1.47	102.26	2.67	72.72	1479
82	1.47	102.99	2.69	72.87	1479
84	1.48	99.66	2.60	72.21	1479
86	1.48	101.33	2.64	72.54	1479
88	1.49	97.57	2.54	71.78	1478
90	1.48	100.76	2.63	72.43	1478
92	1.45	110.37	2.88	74.21	1481
94	1.49	97.89	2.55	71.85	1481
96	1.51	91.67	2.39	70.50	1482
98	1.47	103.90	2.71	73.04	1479
100	1.47	103.06	2.69	72.88	1478
102					
104					
106	1.36	148.09	3.86	79.43	
108	1.47	102.13	2.66	72.70	
110	1.48	98.75	2.57	72.03	
112	1.49	98.12	2.56	71.90	
114	1.49	97.94	2.55	71.86	
116	1.48	100.86	2.63	72.45	
118	1.53	86.99	2.27	69.40	1492
120	1.55	80.99	2.11	67.86	1488
122	1.50	93.56	2.44	70.93	1475

HM 17

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
124	1.55	81.96	2.14	68.12	1481
126	1.53	85.84	2.24	69.12	1481
128	1.57	77.46	2.02	66.88	1482
130	1.55	80.89	2.11	67.84	1483
132	1.58	75.40	1.97	66.28	1483
134	1.61	69.18	1.80	64.33	1486
136	1.59	73.06	1.90	65.58	1486
138	1.61	70.11	1.83	64.64	1488
140	1.60	71.88	1.87	65.21	1490
142	1.63	65.27	1.70	62.99	1494
144	1.65	63.22	1.65	62.24	1494
146	1.65	63.15	1.65	62.22	1490
148	1.62	67.41	1.76	63.74	1491
150	1.61	69.72	1.82	64.51	1491
152	1.62	67.24	1.75	63.68	1495
154	1.58	75.31	1.96	66.26	1484
156	1.59	73.01	1.90	65.56	1487
158	1.62	67.00	1.75	63.60	1489
160	1.64	64.63	1.69	62.76	1493
162	1.61	68.49	1.79	64.10	1493
164	1.65	62.70	1.63	62.05	1506
166	1.70	54.52	1.42	58.71	1507
168	1.71	54.17	1.41	58.55	1511
170	1.68	58.18	1.52	60.27	1509
172	1.69	56.08	1.46	59.39	1512
174	1.67	59.35	1.55	60.74	1502
176	1.63	66.01	1.72	63.25	1495
178	1.66	61.37	1.60	61.54	1496
180	1.66	60.23	1.57	61.09	1502
182	1.69	56.44	1.47	59.54	1494

HM 17

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.64	63.85	1.66	62.48	1486
186	1.67	60.02	1.57	61.01	1495
188	1.66	60.14	1.57	61.06	1494
190	1.66	61.63	1.61	61.64	1492
192	1.66	60.79	1.59	61.32	1493
194	1.66	60.86	1.59	61.34	1494
196	1.71	53.98	1.41	58.46	1502
198	1.71	54.27	1.42	58.59	1501
200	1.70	55.37	1.44	59.08	1500
202	1.68	57.72	1.51	60.08	1500
204	1.67	59.60	1.55	60.85	1498
206	1.66	60.99	1.59	61.39	

HM 19

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					1493
10	1.47	102.92	2.68	72.85	1488
12	1.50	94.01	2.45	71.02	1486
14	1.62	67.73	1.77	63.85	1496
16	1.45	108.50	2.83	73.88	1484
18	1.48	98.90	2.58	72.06	1484
20	1.49	97.20	2.53	71.71	1483
22	1.48	100.00	2.61	72.28	1481
24	1.46	107.35	2.80	73.68	1480
26	1.41	124.60	3.25	76.46	1477
28	1.49	96.64	2.52	71.59	1479
30	1.57	76.63	2.00	66.65	1486
32	1.61	69.52	1.81	64.45	1492
34	1.67	59.28	1.55	60.72	1502
36	1.72	52.52	1.37	57.79	1509
38	1.72	51.79	1.35	57.46	1510
40	1.68	58.53	1.53	60.41	1502
42	1.69	56.77	1.48	59.68	1503
44	1.69	55.91	1.46	59.32	1501
46	1.69	56.00	1.46	59.35	1493
48	1.80	43.16	1.13	52.95	1547
50	1.70	54.51	1.42	58.70	1518
52	1.68	58.55	1.53	60.42	1511
54	1.70	55.60	1.45	59.18	1506
56	1.66	60.55	1.58	61.22	1497
58	1.67	58.69	1.53	60.48	1494

HM 19

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.62	67.22	1.75	63.67	1492
62	1.59	72.77	1.90	65.49	1482
64	1.54	84.61	2.21	68.81	1476
66	1.55	82.65	2.16	68.31	1474
68	1.57	76.57	2.00	66.63	1476
70	1.59	72.83	1.90	65.51	1478
72	1.59	73.38	1.91	65.68	1480
74	1.61	70.17	1.83	64.66	1479
76	1.57	76.23	1.99	66.53	1478
78	1.56	79.42	2.07	67.43	1478
80	1.55	81.01	2.11	67.87	1477
82	1.58	74.87	1.95	66.13	1478
84	1.59	73.72	1.92	65.78	1478
86	1.58	74.98	1.96	66.16	1478
88	1.68	58.04	1.51	60.21	1498
90	1.56	79.76	2.08	67.53	1476
92	1.70	54.42	1.42	58.66	1485
94	1.65	61.73	1.61	61.68	1495
96	1.71	54.33	1.42	58.62	1500
98	1.64	63.78	1.66	62.45	1491
100	1.77	45.93	1.20	54.50	
102	1.66	60.47	1.58	61.19	1521
104	1.71	53.39	1.39	58.19	1521
106					
108					
110	1.67	59.14	1.54	60.66	
112	1.66	61.69	1.61	61.66	
114	1.63	66.40	1.73	63.39	
116	1.67	58.87	1.54	60.55	
118	1.72	52.90	1.38	57.97	
120	1.72	52.58	1.37	57.82	

HM 19

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.69	56.21	1.47	59.44	
124	1.69	55.87	1.46	59.30	
126	1.68	57.47	1.50	59.98	
128	1.68	57.55	1.50	60.01	
130	1.67	59.55	1.55	60.83	
132	1.67	59.28	1.55	60.72	
134	1.67	59.46	1.55	60.79	1487
136	1.67	59.72	1.56	60.90	1486
138	1.67	59.50	1.55	60.81	1488
140	1.70	55.16	1.44	58.99	1500
142	1.79	43.80	1.14	53.31	1516
144	1.71	53.40	1.39	58.20	1502
146	1.67	58.73	1.53	60.50	1491
148	1.73	51.25	1.34	57.20	1498
150	1.89	34.39	0.90	47.27	1557
152	1.93	31.04	0.81	44.73	1572
154	2.13	18.49	0.48	32.53	1663
156	2.16	17.26	0.45	31.04	1675
158	2.17	16.58	0.43	30.19	1680
160	2.18	16.36	0.43	29.91	1686
162	2.17	16.92	0.44	30.61	1685
164	2.20	15.29	0.40	28.50	1687
166	2.19	15.78	0.41	29.15	1685
168	2.17	16.54	0.43	30.14	1698
170	2.17	16.66	0.43	30.29	1697
172	2.06	22.74	0.59	37.22	1695
174	1.83	39.60	1.03	50.80	1538
176	1.83	39.87	1.04	50.97	1527
178	1.83	39.61	1.03	50.80	1525
180	1.84	38.62	1.01	50.18	1526
182	1.83	40.19	1.05	51.17	1527

HM 19

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.85	38.00	0.99	49.77	1530
186	1.86	37.17	0.97	49.22	1529
188	1.81	41.75	1.09	52.12	1520
190	1.80	43.05	1.12	52.89	1519
192	1.81	41.49	1.08	51.97	1521
194	1.93	31.25	0.81	44.90	1569
196	1.95	30.18	0.79	44.04	
198	2.01	25.41	0.66	39.85	1521
200	1.97	28.56	0.74	42.68	

HM 29

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8	1.48	100.48	2.62	72.37	
10	1.49	98.19	2.56	71.91	1492
12	1.48	100.80	2.63	72.44	1490
14	1.48	99.35	2.59	72.15	1490
16	1.44	113.50	2.96	74.74	1490
18	1.47	104.18	2.72	73.09	1491
20	1.46	107.34	2.80	73.68	1493
22	1.48	100.65	2.62	72.41	1494
24	1.46	108.01	2.82	73.80	1494
26	1.46	107.30	2.80	73.67	1492
28	1.48	99.47	2.59	72.17	1490
30	1.46	106.06	2.77	73.44	1488
32	1.45	108.53	2.83	73.89	1488
34	1.43	115.51	3.01	75.07	1487
36	1.47	103.69	2.70	73.00	1487
38	1.50	94.27	2.46	71.08	1489
40	1.48	99.78	2.60	72.23	1489
42	1.48	101.33	2.64	72.54	1490
44	1.49	97.26	2.54	71.72	1492
46	1.46	107.82	2.81	73.76	1492
48	1.50	95.60	2.49	71.37	1492
50	1.45	108.95	2.84	73.96	1490
52	1.48	99.17	2.59	72.11	1487
54	1.47	103.49	2.70	72.96	1487
56	1.48	101.39	2.64	72.56	1487
58	1.45	108.26	2.82	73.84	1492

HM 29

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.49	96.48	2.52	71.56	1490
62	1.50	94.75	2.47	71.19	1490
64	1.48	100.38	2.62	72.36	1487
66	1.48	100.03	2.61	72.28	1486
68	1.45	108.32	2.82	73.85	1485
70	1.47	102.97	2.68	72.86	1485
72	1.48	99.26	2.59	72.13	1484
74	1.46	107.88	2.81	73.77	1483
76	1.42	120.21	3.13	75.81	1484
78	1.43	116.94	3.05	75.30	1485
80	1.41	123.97	3.23	76.37	1486
82	1.45	109.89	2.87	74.13	1486
84	1.45	108.69	2.83	73.92	1486
86	1.45	108.51	2.83	73.89	1488
88	1.47	103.39	2.70	72.94	1485
90	1.46	105.51	2.75	73.34	1485
92	1.51	92.73	2.42	70.74	1486
94	1.49	97.59	2.54	71.79	1485
96					
98	1.49	96.13	2.51	71.48	1510
100					
102					
104					
106					
108					
110					
112	1.50	94.33	2.46	71.10	
114					
116	1.54	84.33	2.20	68.74	
118	1.57	76.37	1.99	66.57	
120	1.62	67.34	1.76	63.71	

HM 29

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.61	70.04	1.83	64.62	
124	1.64	63.69	1.66	62.42	
126	1.69	56.53	1.47	59.58	
128	1.68	58.56	1.53	60.43	1502
130	1.68	57.68	1.50	60.06	1504
132	1.64	64.40	1.68	62.67	1497
134	1.69	56.75	1.48	59.67	1500
136	1.69	56.25	1.47	59.46	1497
138	1.69	56.34	1.47	59.50	1499
140	1.73	50.76	1.32	56.96	1514
142	1.79	43.97	1.15	53.41	1524
144	1.80	43.46	1.13	53.12	1524
146	1.74	50.21	1.31	56.69	1503
148	1.75	48.35	1.26	55.77	1510
150	1.79	44.33	1.16	53.61	1515
152	1.73	50.75	1.32	56.96	1506
154	1.72	52.15	1.36	57.62	1513
156	1.73	50.48	1.32	56.83	1510
158	1.78	45.35	1.18	54.18	1518
160	1.77	46.04	1.20	54.55	1517
162	1.77	46.42	1.21	54.76	1516
164	1.79	43.70	1.14	53.26	1519
166	1.83	39.92	1.04	51.00	1523
168	1.82	40.48	1.06	51.35	1529
170	1.87	36.70	0.96	48.90	1550
172	1.85	37.99	0.99	49.76	1550
174	1.85	37.89	0.99	49.70	1549
176	1.89	34.14	0.89	47.10	1556
178	1.89	34.54	0.90	47.39	1557
180	1.87	36.42	0.95	48.71	1555
182	1.89	34.20	0.89	47.14	1559

HM 29

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.89	34.40	0.90	47.29	1559
186	1.91	32.54	0.85	45.90	1558
188	1.87	36.66	0.96	48.87	1557
190	1.82	40.55	1.06	51.40	1541
192	1.82	40.70	1.06	51.48	
194	1.80	43.22	1.13	52.99	
196	1.83	40.44	1.05	51.32	1568
198					1574

HM 31

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14	1.40	130.71	3.41	77.32	
16	1.38	139.40	3.63	78.42	
18					
20	1.46	105.31	2.75	73.30	
22	1.46	105.52	2.75	73.34	
24	1.49	95.84	2.50	71.42	
26	1.46	105.90	2.76	73.41	
28	1.42	121.59	3.17	76.02	
30	1.46	107.67	2.81	73.74	
32	1.47	102.05	2.66	72.68	1491
34	1.48	99.74	2.60	72.23	1494
36	1.46	107.45	2.80	73.70	1500
38	1.50	95.45	2.49	71.34	1494
40	1.48	100.17	2.61	72.31	1490
42	1.49	97.90	2.55	71.85	1490
44	1.45	108.44	2.83	73.87	1497
46	1.47	103.18	2.69	72.90	1499
48	1.47	103.85	2.71	73.03	1502
50	1.50	94.29	2.46	71.09	1488
52	1.49	97.66	2.55	71.80	1484
54	1.50	93.10	2.43	70.83	1484
56	1.48	99.24	2.59	72.13	1486
58	1.51	91.85	2.39	70.54	1485

HM 31

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.52	89.94	2.35	70.11	1490
62	1.54	85.15	2.22	68.95	1489
64	1.52	87.73	2.29	69.58	1490
66	1.51	92.02	2.40	70.58	1489
68	1.49	97.66	2.55	71.80	1493
70	1.51	91.48	2.39	70.46	1491
72	1.50	93.05	2.43	70.81	1501
74	1.48	98.90	2.58	72.06	1505
76	1.51	90.62	2.36	70.26	1505
78	1.50	95.36	2.49	71.32	1506
80	1.49	97.74	2.55	71.82	1509
82	1.52	89.75	2.34	70.06	1506
84	1.53	87.26	2.28	69.47	1498
86	1.52	89.82	2.34	70.08	1499
88	1.47	103.75	2.71	73.01	1492
90	1.49	97.30	2.54	71.73	1499
92	1.54	83.68	2.18	68.57	1509
94	1.48	100.15	2.61	72.31	1466
96	1.43	117.85	3.07	75.45	
98	1.52	89.66	2.34	70.04	1472
100	1.51	91.07	2.37	70.37	
102	1.36	146.97	3.83	79.31	
104	1.36	149.54	3.90	79.59	
106	1.41	125.93	3.28	76.65	
108	1.34	161.33	4.21	80.79	
110					
112					
114	1.33	167.50	4.37	81.37	
116	1.42	120.99	3.15	75.93	
118	1.42	119.10	3.11	75.64	
120	1.40	129.12	3.37	77.10	

HM 31

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.46	107.61	2.81	73.72	
124	1.46	107.04	2.79	73.62	
126	1.45	111.24	2.90	74.36	
128	1.42	120.49	3.14	75.86	
130	1.41	126.95	3.31	76.80	
132	1.45	109.40	2.85	74.04	
134	1.47	103.76	2.71	73.01	
136	1.48	101.01	2.63	72.48	
138	1.46	105.09	2.74	73.26	
140	1.49	95.94	2.50	71.44	
142	1.50	93.88	2.45	71.00	
144	1.51	91.55	2.39	70.48	1484
146	1.49	97.08	2.53	71.68	1473
148	1.52	89.60	2.34	70.03	1480
150	1.50	95.29	2.48	71.30	1484
152	1.50	92.95	2.42	70.79	1483
154	1.54	84.52	2.20	68.79	1485
156	1.52	87.78	2.29	69.59	1485
158	1.52	89.83	2.34	70.08	1486
160	1.48	100.40	2.62	72.36	1486
162	1.52	89.73	2.34	70.06	1483
164	1.52	89.03	2.32	69.89	1484
166	1.53	86.17	2.25	69.20	1484
168	1.51	90.46	2.36	70.23	1483
170	1.52	89.15	2.32	69.92	1483
172	1.51	92.82	2.42	70.76	1484
174	1.52	88.41	2.31	69.74	1484
176	1.52	89.06	2.32	69.90	1485
178	1.50	95.48	2.49	71.34	1483
180	1.51	91.54	2.39	70.47	1483
182	1.51	91.92	2.40	70.56	1483

HM 31

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.50	94.01	2.45	71.03	1483
186	1.50	94.08	2.45	71.04	1485
188	1.50	93.16	2.43	70.84	1484
190	1.52	89.01	2.32	69.89	1485
192					
194	1.53	85.87	2.24	69.13	1511
196	1.55	81.77	2.13	68.07	1511
198					
200					
202					
204					
206					
208	1.45	108.12	2.82	73.82	
210	1.48	101.31	2.64	72.54	
212	1.52	88.77	2.31	69.83	
214	1.54	84.74	2.21	68.84	
216	1.52	89.84	2.34	70.08	
218	1.55	82.42	2.15	68.24	
220	1.55	81.06	2.11	67.88	1486
222	1.52	89.76	2.34	70.06	1485
224	1.50	93.02	2.43	70.81	1483
226	1.50	92.91	2.42	70.78	1485
228	1.52	89.17	2.32	69.92	1485
230	1.51	90.64	2.36	70.27	1485
232	1.50	94.50	2.46	71.13	1484
234	1.51	91.70	2.39	70.51	1484
236	1.50	94.67	2.47	71.17	1482
238	1.48	99.11	2.58	72.10	1482
240	1.50	94.95	2.48	71.23	1483
242	1.51	90.39	2.36	70.21	1485
244	1.51	91.85	2.39	70.54	1483

HM 31

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.52	89.81	2.34	70.08	1484
248	1.51	90.23	2.35	70.17	1483
250	1.50	93.13	2.43	70.83	1483
252	1.49	97.69	2.55	71.81	1482
254	1.50	92.96	2.42	70.79	1484
256	1.51	92.21	2.40	70.62	1484
258	1.53	86.51	2.26	69.28	1485
260	1.51	92.27	2.41	70.64	1483
262	1.49	95.90	2.50	71.43	1484
264	1.50	93.81	2.45	70.98	1484
266	1.47	101.67	2.65	72.61	1482
268	1.49	97.58	2.54	71.79	1483
270	1.52	88.79	2.32	69.83	1484
272	1.50	94.63	2.47	71.16	1482
274	1.48	99.54	2.60	72.19	1481
276	1.51	91.65	2.39	70.50	1482
278	1.51	90.75	2.37	70.29	1484
280	1.53	86.79	2.26	69.35	1484
282	1.51	92.02	2.40	70.58	1484
284	1.47	104.17	2.72	73.09	1482
286	1.50	93.68	2.44	70.95	1484
288	1.52	87.96	2.29	69.64	1486
290	1.50	94.73	2.47	71.18	1484
292	1.48	101.16	2.64	72.51	1483
294	1.47	104.64	2.73	73.18	1481
296	1.41	124.16	3.24	76.40	
298	1.49	97.36	2.54	71.74	1500

HM 32

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14					
16					
18					1492
20	1.52	88.97	2.32	69.88	1502
22	1.51	92.36	2.41	70.66	1501
24	1.62	67.65	1.76	63.82	1508
26	1.70	55.44	1.45	59.11	1516
28	1.71	53.61	1.40	58.29	1518
30	1.89	34.19	0.89	47.13	1591
32	1.91	32.98	0.86	46.24	1574
34	1.86	37.37	0.97	49.35	1564
36	1.79	44.06	1.15	53.46	1532
38	1.73	50.77	1.32	56.97	1517
40	1.74	49.80	1.30	56.50	1550
42	1.63	64.97	1.69	62.88	1492
44	1.64	63.85	1.66	62.47	1495
46	1.57	76.26	1.99	66.54	1488
48	1.62	67.73	1.77	63.85	1488
50	1.74	49.95	1.30	56.57	1516
52	1.73	51.64	1.35	57.38	1516
54	1.72	52.53	1.37	57.80	1516
56	1.76	47.12	1.23	55.13	1522
58	1.75	48.29	1.26	55.74	1523

HM 32

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.77	46.56	1.21	54.83	1526
62	1.82	40.72	1.06	51.50	1559
64	1.84	39.14	1.02	50.51	1550
66	1.87	36.39	0.95	48.69	1556
68	1.84	38.68	1.01	50.21	1557
70	1.87	36.04	0.94	48.45	1553
72	1.86	36.97	0.96	49.09	1556
74	1.88	35.38	0.92	47.99	1557
76	1.89	34.50	0.90	47.35	1558
78	1.87	36.35	0.95	48.66	1557
80	1.88	35.10	0.92	47.79	1558
82	1.88	35.29	0.92	47.92	1560
84	1.90	33.70	0.88	46.77	1559
86	2.00	26.03	0.68	40.43	1556
88	1.83	40.31	1.05	51.25	
90	1.85	38.02	0.99	49.78	1548
92	1.73	51.27	1.34	57.21	

HM 34

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14	1.48	99.19	2.59	72.12	
16	1.49	97.06	2.53	71.68	
18	1.52	88.96	2.32	69.88	
20	1.49	98.51	2.57	71.98	
22	1.59	74.01	1.93	65.87	
24	1.68	58.50	1.53	60.40	
26	1.69	56.79	1.48	59.69	
28	1.76	47.70	1.24	55.43	
30	1.71	54.14	1.41	58.53	
32	1.69	56.63	1.48	59.62	1475
34	1.69	56.43	1.47	59.54	1513
36	1.75	49.15	1.28	56.17	1519
38	1.83	39.64	1.03	50.83	
40	1.73	51.48	1.34	57.30	1508
42	1.67	59.36	1.55	60.75	1498
44	1.64	64.49	1.68	62.71	1494
46	1.69	56.48	1.47	59.56	1506
48	1.69	56.10	1.46	59.39	1507
50	1.72	52.63	1.37	57.85	1513
52	1.76	46.95	1.22	55.04	1527
54	1.79	44.25	1.15	53.57	1528
56	1.76	47.52	1.24	55.34	1523
58	1.75	48.24	1.26	55.71	1524

HM 34

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.78	45.09	1.18	54.03	1529
62	1.81	41.62	1.09	52.04	1529
64	1.83	40.33	1.05	51.25	1553
66	1.85	37.94	0.99	49.73	1558
68	1.83	39.97	1.04	51.03	1544
70	1.90	34.06	0.89	47.04	1552
72	1.88	35.51	0.93	48.08	1552
74	1.90	33.74	0.88	46.80	1554
76	1.87	35.86	0.93	48.32	1555
78	1.86	36.81	0.96	48.97	1555
80	1.91	33.16	0.86	46.37	1553
82	1.88	35.68	0.93	48.20	1556
84	1.90	33.67	0.88	46.75	1557
86	1.89	34.40	0.90	47.28	1557
88	1.92	32.31	0.84	45.72	1557
90	1.92	32.03	0.84	45.51	1557
92	1.89	34.27	0.89	47.19	1559
94	1.90	33.51	0.87	46.63	1557
96	1.93	31.33	0.82	44.96	1555
98	1.90	33.59	0.88	46.69	1557
100	1.88	35.68	0.93	48.19	1558
102	1.90	34.07	0.89	47.05	1557
104	1.90	33.56	0.87	46.66	1559
106	1.90	33.54	0.87	46.65	1560
108	1.90	33.66	0.88	46.74	1560
110	1.90	34.03	0.89	47.02	1559
112	1.91	32.67	0.85	46.00	1560
114	1.91	32.85	0.86	46.14	1566
116					
118					1552
120					1542

HM 36

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4	1.64	64.83	1.69	62.83	
6	1.62	67.67	1.76	63.83	
8	1.66	61.09	1.59	61.43	
10	1.71	53.06	1.38	58.04	
12	1.67	60.12	1.57	61.05	
14	1.68	57.90	1.51	60.15	1450
16	1.72	52.47	1.37	57.77	
18	1.70	54.67	1.43	58.77	
20	1.70	55.27	1.44	59.04	
22	1.70	55.51	1.45	59.14	
24	1.71	53.89	1.41	58.42	
26	1.68	58.41	1.52	60.36	
28	1.69	55.93	1.46	59.32	
30	1.65	63.09	1.65	62.19	
32	1.71	53.77	1.40	58.37	
34	1.68	57.84	1.51	60.13	
36	1.68	57.70	1.50	60.07	1490
38	1.71	53.11	1.38	58.07	1507
40	1.69	57.10	1.49	59.82	1502
42	1.71	53.81	1.40	58.39	1505
44	1.75	49.14	1.28	56.16	1512
46	1.73	50.88	1.33	57.02	1504
48	1.71	54.23	1.41	58.58	1501
50	1.75	48.18	1.26	55.68	1512
52	1.72	51.96	1.35	57.53	1515
54	1.74	50.27	1.31	56.72	1517
56	1.78	44.65	1.16	53.79	1515
58	1.77	46.60	1.22	54.86	1520

HM 36

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.74	49.40	1.29	56.30	1512
62	1.73	51.39	1.34	57.26	1509
64	1.75	49.16	1.28	56.18	1513
66	1.77	46.02	1.20	54.55	1509
68	1.79	43.96	1.15	53.41	1526
70	1.74	50.33	1.31	56.75	1514
72	1.72	52.92	1.38	57.98	1507
74	1.75	48.95	1.28	56.07	1511
76	1.73	50.67	1.32	56.92	1508
78	1.75	48.49	1.26	55.84	1511
80	1.77	46.69	1.22	54.90	1517
82	1.65	62.91	1.64	62.13	1524
84					1486
86	1.66	60.99	1.59	61.39	
88	1.69	56.23	1.47	59.45	
90	1.71	53.43	1.39	58.22	
92	1.70	55.15	1.44	58.98	1527
94	1.73	51.66	1.35	57.39	
96	1.81	42.45	1.11	52.54	1572
98	1.77	46.48	1.21	54.79	

HM 37

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8	1.56	79.95	2.08	67.58	1507
10	1.54	84.41	2.20	68.76	1500
12	1.53	86.78	2.26	69.35	1491
14	1.55	82.38	2.15	68.23	1495
16	1.56	79.25	2.07	67.39	1500
18	1.64	64.41	1.68	62.68	1504
20	1.69	55.95	1.46	59.33	1515
22	1.72	52.53	1.37	57.80	1514
24	1.72	52.90	1.38	57.97	1510
26	1.71	54.27	1.41	58.59	1509
28	1.72	52.69	1.37	57.88	1515
30	1.69	55.74	1.45	59.24	1514
32	1.73	50.62	1.32	56.89	1516
34	1.65	62.99	1.64	62.16	1496
36	1.67	59.27	1.55	60.71	1499
38	1.67	59.75	1.56	60.91	1494
40	1.65	62.66	1.63	62.03	1491
42	1.77	46.72	1.22	54.92	1532
44	1.77	46.31	1.21	54.70	1516
46	1.76	47.58	1.24	55.37	1521
48	1.74	49.25	1.28	56.22	1516
50	1.74	49.49	1.29	56.34	1520
52	1.77	45.91	1.20	54.48	1520
54	1.83	40.17	1.05	51.16	1556
56	1.86	37.37	0.97	49.35	1554
58	1.84	38.63	1.01	50.18	1549

HM 37

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.85	37.77	0.98	49.62	1548
62	1.86	37.29	0.97	49.30	1549
64	1.89	34.18	0.89	47.12	1551
66	1.86	36.94	0.96	49.07	1555
68	1.90	33.86	0.88	46.89	1556
70	1.87	36.55	0.95	48.80	1551
72	1.86	37.14	0.97	49.20	1551
74	1.88	35.80	0.93	48.28	1554
76	1.89	34.18	0.89	47.13	1552
78	1.88	35.33	0.92	47.95	1551
80	1.90	33.44	0.87	46.58	1550
82	1.90	33.95	0.89	46.95	1549
84	1.88	35.57	0.93	48.12	1556
86	1.90	33.54	0.87	46.65	1550
88	1.88	35.65	0.93	48.17	1554
90	1.87	35.85	0.93	48.31	1554
92	1.86	37.04	0.97	49.13	1551
94	1.83	40.24	1.05	51.20	
96	1.79	43.64	1.14	53.23	
98	1.91	32.55	0.85	45.91	
100					
102					
104	1.91	32.54	0.85	45.90	1570
106	1.93	31.59	0.82	45.16	1571
108	1.88	35.63	0.93	48.16	1565
110	1.91	33.05	0.86	46.28	1566
112	1.85	37.65	0.98	49.54	1552
114	1.89	34.48	0.90	47.34	1560
116	1.88	35.14	0.92	47.82	1556
118	1.88	35.43	0.92	48.02	1554
120	1.91	32.79	0.86	46.09	1552

HM 37

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.89	34.30	0.89	47.21	1556
124	1.90	34.12	0.89	47.08	1553
126	1.90	33.94	0.88	46.95	1555
128	1.89	34.43	0.90	47.31	1559
130	1.96	28.87	0.75	42.95	
132	1.88	35.16	0.92	47.83	1555
134	1.93	31.01	0.81	44.71	1551
136	1.89	34.59	0.90	47.42	1555
138	1.89	34.33	0.90	47.24	1555
140	1.91	33.12	0.86	46.34	1553
142	1.90	33.95	0.89	46.95	1554
144	1.92	32.47	0.85	45.84	1555
146	1.91	32.68	0.85	46.01	1557
148	1.93	31.64	0.82	45.20	1557
150	1.92	32.44	0.85	45.82	1561
152	1.92	32.14	0.84	45.60	1559
154	1.92	31.88	0.83	45.39	1559
156	1.94	30.89	0.81	44.61	1559
158	1.92	32.14	0.84	45.59	1557
160	1.92	31.84	0.83	45.36	1562
162	1.91	32.85	0.86	46.14	1557
164	1.92	32.41	0.85	45.80	1558
166	1.92	32.23	0.84	45.66	1559
168	1.91	33.17	0.86	46.38	1562
170	1.93	31.58	0.82	45.16	1560
172	1.89	34.27	0.89	47.19	1560
174	1.90	34.04	0.89	47.02	1562
176	1.94	30.44	0.79	44.25	1559
178	1.92	31.87	0.83	45.39	1562
180	1.91	32.93	0.86	46.19	1563
182	1.92	31.89	0.83	45.40	1559

HM 37

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.91	32.91	0.86	46.18	1560
186	1.91	32.63	0.85	45.97	1561
188	1.93	31.24	0.81	44.89	1561
190	1.96	29.24	0.76	43.26	
192	1.95	29.96	0.78	43.86	1560
194	1.93	31.03	0.81	44.72	1565
196	1.93	31.43	0.82	45.04	1565
198	1.94	30.64	0.80	44.41	1567
200	1.94	30.70	0.80	44.46	1567
202	1.94	30.68	0.80	44.45	1569
204	1.94	30.37	0.79	44.19	1568
206	1.96	28.81	0.75	42.90	1569
208	1.98	27.50	0.72	41.76	1568
210	1.91	32.51	0.85	45.88	1572
212	1.95	29.99	0.78	43.89	1566
214	1.95	29.62	0.77	43.58	1575
216	1.95	29.86	0.78	43.78	1579
218	1.95	30.17	0.79	44.03	
220	1.92	32.47	0.85	45.85	
222	1.88	35.82	0.93	48.29	
224	1.97	28.58	0.75	42.70	
226	2.02	25.02	0.65	39.48	

HM 38

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					1503
12					1497
14	1.48	101.52	2.65	72.58	1491
16	1.48	98.85	2.58	72.05	1493
18	1.53	86.57	2.26	69.30	1496
20	1.59	72.37	1.89	65.36	1505
22	1.63	65.12	1.70	62.94	1512
24	1.65	62.98	1.64	62.15	1511
26	1.68	57.40	1.50	59.94	1509
28	1.65	61.89	1.61	61.74	1510
30	1.64	64.00	1.67	62.53	1508
32	1.69	56.39	1.47	59.52	1519
34	1.65	63.12	1.65	62.20	1507
36	1.65	61.91	1.61	61.75	1502
38	1.66	61.28	1.60	61.51	1503
40	1.64	64.09	1.67	62.56	1499
42	1.60	71.98	1.88	65.24	1488
44	1.61	69.58	1.81	64.47	1490
46	1.85	37.71	0.98	49.57	1551
48	1.87	36.27	0.95	48.60	1550
50	1.83	40.28	1.05	51.22	1544
52	1.78	45.00	1.17	53.99	1536
54	1.82	41.45	1.08	51.94	1547
56	1.93	31.14	0.81	44.81	1586
58	1.92	31.98	0.83	45.47	1571

HM 38

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.87	36.15	0.94	48.52	1557
62	1.67	59.26	1.55	60.71	1513
64	1.76	47.17	1.23	55.16	1525
66	1.74	50.39	1.31	56.78	1522
68	1.77	46.72	1.22	54.92	1523
70	1.74	49.33	1.29	56.26	1524
72	1.76	46.86	1.22	54.99	1528
74	1.82	41.45	1.08	51.94	1546
76	1.84	39.07	1.02	50.46	1543
78	1.82	41.18	1.07	51.78	1544
80	1.84	39.10	1.02	50.48	1548
82	1.85	38.16	1.00	49.88	1547
84	1.85	38.15	0.99	49.87	1548
86	1.84	38.68	1.01	50.21	1550
88	1.84	39.10	1.02	50.48	1551
90	1.87	36.39	0.95	48.68	1552
92	1.85	37.62	0.98	49.52	1553
94	1.79	43.93	1.15	53.39	
96	1.84	39.01	1.02	50.43	
98	1.91	33.14	0.86	46.35	1547
100					
102					
104	1.82	41.36	1.08	51.88	
106	1.79	43.98	1.15	53.42	
108	1.86	37.31	0.97	49.31	
110	1.88	35.43	0.92	48.02	
112	1.92	31.91	0.83	45.42	
114	1.86	36.82	0.96	48.98	1427
116	1.85	38.42	1.00	50.05	1559
118	1.87	36.42	0.95	48.71	1561
120	1.85	38.01	0.99	49.77	1559

HM 38

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.86	37.35	0.97	49.34	1557
124	1.85	37.89	0.99	49.70	1555
126	1.86	37.08	0.97	49.16	1553
128	1.85	38.06	0.99	49.81	1552
130	1.87	36.69	0.96	48.89	1552
132	1.85	38.01	0.99	49.78	1551
134	1.85	37.86	0.99	49.68	1551
136	1.89	34.27	0.89	47.19	1551
138	1.84	38.81	1.01	50.30	1550
140	1.87	36.16	0.94	48.53	1554
142	1.85	37.90	0.99	49.71	1552
144	1.86	36.98	0.96	49.09	1552
146	1.85	38.38	1.00	50.02	1550
148	1.83	40.11	1.05	51.12	1549
150	1.85	38.44	1.00	50.06	1552
152	1.85	38.54	1.00	50.12	1552
154	1.88	35.40	0.92	48.00	1551
156	1.88	35.77	0.93	48.25	1551
158	1.86	37.27	0.97	49.29	1552
160	1.85	37.97	0.99	49.75	1553
162	1.86	36.73	0.96	48.92	1557
164	1.85	38.05	0.99	49.80	1555
166	1.85	38.24	1.00	49.93	1555
168	1.86	37.22	0.97	49.25	1555
170	1.85	37.76	0.98	49.61	1556
172	1.88	35.64	0.93	48.16	1555
174	1.86	37.22	0.97	49.25	1556
176	1.87	36.63	0.96	48.85	1555
178	1.86	36.93	0.96	49.06	1561
180	1.88	35.05	0.91	47.75	1554
182	1.87	36.46	0.95	48.74	1557

HM 38

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.88	35.56	0.93	48.11	1558
186	1.87	36.24	0.95	48.59	1558
188	1.87	36.17	0.94	48.54	1560
190	1.85	37.71	0.98	49.58	1559
192	1.86	37.11	0.97	49.17	1563
194	1.83	40.10	1.05	51.11	
196	1.84	38.93	1.02	50.37	
198	1.91	32.51	0.85	45.88	
200					
202	1.87	35.96	0.94	48.39	
204	1.85	38.42	1.00	50.04	
206	1.84	39.10	1.02	50.48	
208	1.92	31.73	0.83	45.27	1566
210	1.94	30.34	0.79	44.17	1558
212	1.89	34.80	0.91	47.57	1567
214	1.88	35.47	0.92	48.05	1566
216	1.90	33.76	0.88	46.81	1564
218	1.92	31.76	0.83	45.30	1564
220	1.89	34.92	0.91	47.66	1564
222	1.88	35.38	0.92	47.98	1565
224	1.89	34.51	0.90	47.37	1565
226	1.92	32.48	0.85	45.86	1567
228	1.88	35.66	0.93	48.18	1568
230	1.89	34.65	0.90	47.46	1570
232	1.91	33.03	0.86	46.27	1570
234	1.81	41.61	1.08	52.04	
236	1.82	40.64	1.06	51.45	

HM 40

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10	1.55	82.55	2.15	68.28	1457
12	1.56	78.41	2.04	67.15	1506
14	1.60	71.64	1.87	65.13	1501
16	1.71	53.41	1.39	58.20	1507
18	1.72	51.85	1.35	57.48	1517
20	1.74	50.10	1.31	56.64	1518
22	1.76	46.89	1.22	55.01	1520
24	1.72	52.26	1.36	57.68	1512
26	1.72	52.52	1.37	57.79	1511
28	1.72	52.10	1.36	57.60	1515
30	1.74	49.38	1.29	56.28	1521
32	1.76	47.16	1.23	55.15	1523
34	1.69	56.92	1.48	59.74	1502
36	1.70	55.04	1.44	58.94	1499
38	1.66	60.35	1.57	61.14	1499
40	1.71	53.24	1.39	58.13	1500
42	1.70	54.78	1.43	58.82	1514
44	1.69	56.80	1.48	59.70	
46	1.74	49.86	1.30	56.52	1501
48	1.76	47.50	1.24	55.33	1555
50					
52	1.76	47.55	1.24	55.35	
54	1.72	52.30	1.36	57.69	
56	1.78	44.75	1.17	53.85	1527
58	1.80	43.00	1.12	52.86	
60	1.80	42.82	1.12	52.75	1548

HM 40

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
62	1.82	40.91	1.07	51.61	1548
64	1.83	40.33	1.05	51.26	1550
66	1.82	40.89	1.07	51.60	1546
68	1.82	40.99	1.07	51.66	1545
70	1.82	41.17	1.07	51.77	1542
72	1.83	40.16	1.05	51.15	1541
74	1.82	41.08	1.07	51.72	1543
76	1.82	40.88	1.07	51.59	1542
78	1.80	42.54	1.11	52.59	1543
80	1.83	39.56	1.03	50.77	1543
82	1.84	38.67	1.01	50.21	1543
84	1.84	38.74	1.01	50.25	1539
86	1.84	39.39	1.03	50.67	1541
88	1.83	39.86	1.04	50.96	1544
90	1.83	40.18	1.05	51.17	1544
92	1.82	40.82	1.06	51.56	1543
94	1.84	39.09	1.02	50.48	1538
96	1.83	40.43	1.05	51.32	1538
98	1.81	41.79	1.09	52.15	1541
100	1.82	40.92	1.07	51.62	1540
102	1.82	41.27	1.08	51.83	1542
104	1.84	38.64	1.01	50.19	1542
106	1.83	39.55	1.03	50.77	1543
108	1.81	41.53	1.08	51.99	1544
110	1.82	40.60	1.06	51.43	1543
112	1.85	38.51	1.00	50.10	1545
114	1.82	40.88	1.07	51.60	1545
116	1.83	40.31	1.05	51.25	1547
118	1.84	39.18	1.02	50.53	1546
120	1.82	40.54	1.06	51.39	1544
122	1.83	39.73	1.04	50.88	1544

HM 40

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
124	1.85	37.82	0.99	49.65	1546
126	1.83	40.18	1.05	51.16	1546
128	1.84	39.37	1.03	50.65	1547
130	1.81	41.69	1.09	52.09	1536
132	1.84	39.18	1.02	50.54	1546
134	1.85	37.93	0.99	49.72	1546
136	1.85	38.51	1.00	50.11	1548
138	1.86	36.84	0.96	48.99	1550
140	1.84	38.88	1.01	50.34	1551
142	1.88	35.47	0.92	48.04	1553
144	1.78	45.25	1.18	54.12	
146	1.86	36.72	0.96	48.91	
148	1.88	35.78	0.93	48.27	1544
150	1.78	45.26	1.18	54.13	
152	1.81	41.75	1.09	52.12	
154	1.80	43.42	1.13	53.10	
156	1.86	37.43	0.98	49.39	
158	1.88	34.98	0.91	47.70	
160	1.87	36.10	0.94	48.49	1556
162	1.95	29.49	0.77	43.47	1558
164	1.86	37.29	0.97	49.29	1565
166	1.86	37.28	0.97	49.29	1550
168	1.86	36.73	0.96	48.92	1557
170	1.88	35.37	0.92	47.98	1558
172	1.88	35.65	0.93	48.18	1563
174	1.85	37.99	0.99	49.76	1562
176	1.86	36.92	0.96	49.05	1561
178	1.91	32.52	0.85	45.88	1561
180	1.91	33.28	0.87	46.46	1558
182	1.87	36.26	0.95	48.60	1559
184	1.87	36.32	0.95	48.64	1558

HM 40

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
186	1.88	35.36	0.92	47.97	1566
188	1.86	36.73	0.96	48.92	1561
190	1.88	35.71	0.93	48.22	1561
192	1.85	38.43	1.00	50.05	1560
194	1.88	35.25	0.92	47.89	1561
196	1.87	36.52	0.95	48.78	1560
198	1.92	32.26	0.84	45.69	1552
200	1.86	37.46	0.98	49.41	1561
202	1.88	35.44	0.92	48.03	1561
204	1.85	38.12	0.99	49.85	1564
206	1.89	34.44	0.90	47.31	1560
208	1.86	36.78	0.96	48.95	1561
210	1.86	36.94	0.96	49.06	1560
212	1.87	35.84	0.93	48.31	1560
214	1.90	34.07	0.89	47.04	1557
216	1.87	36.61	0.95	48.83	1560
218	1.87	36.01	0.94	48.43	1559
220	1.88	35.73	0.93	48.23	1563
222	1.89	34.66	0.90	47.47	1562
224	1.87	35.84	0.93	48.31	1562
226	1.88	35.47	0.92	48.05	1564
228	1.87	35.96	0.94	48.39	1563
230	1.88	35.32	0.92	47.94	1563
232	1.89	34.34	0.90	47.24	1561
234	1.90	33.91	0.88	46.93	1560
236	1.88	35.78	0.93	48.26	1567
238	1.90	33.62	0.88	46.72	1570
240	1.90	34.09	0.89	47.06	1575
242	1.77	46.32	1.21	54.71	
244	1.83	40.05	1.04	51.09	1547
246	1.88	35.82	0.93	48.29	

HM 41

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8	1.60	70.73	1.84	64.84	
10	1.60	72.05	1.88	65.26	
12	1.58	74.85	1.95	66.12	
14	1.61	69.25	1.81	64.36	
16	1.59	73.10	1.91	65.59	
18	1.59	72.99	1.90	65.55	
20	1.67	59.15	1.54	60.67	
22	1.61	69.08	1.80	64.30	
24	1.60	70.52	1.84	64.77	1455
26	1.53	85.39	2.23	69.01	1480
28	1.92	31.97	0.83	45.46	
30	1.68	58.22	1.52	60.29	1497
32	1.61	69.57	1.81	64.46	1480
34	1.61	69.47	1.81	64.43	1482
36	1.76	47.54	1.24	55.35	1503
38	1.71	53.86	1.40	58.41	1504
40	1.68	57.99	1.51	60.19	1497
42	1.64	63.79	1.66	62.45	1489
44	1.65	62.18	1.62	61.85	1486
46	1.62	68.30	1.78	64.04	1483
48	1.62	67.75	1.77	63.85	1478
50	1.59	73.21	1.91	65.62	1478
52	1.60	71.55	1.87	65.10	1479
54	1.64	64.68	1.69	62.78	1483
56	1.65	62.26	1.62	61.88	1491
58	1.67	59.09	1.54	60.64	1500

HM 41

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.64	64.75	1.69	62.80	1484
62	1.76	47.36	1.23	55.25	1490
64	1.74	49.43	1.29	56.31	1492
66	1.61	68.69	1.79	64.17	1482
68	1.63	66.24	1.73	63.33	1481
70	1.72	52.24	1.36	57.66	
72	1.59	73.10	1.91	65.59	1478
74	1.65	62.91	1.64	62.13	1485
76	1.62	67.60	1.76	63.80	1487
78	1.66	61.47	1.60	61.58	1495
80	1.65	63.07	1.64	62.19	1488
82	1.65	63.17	1.65	62.22	1485
84	1.64	63.62	1.66	62.39	1489
86	1.62	67.23	1.75	63.67	1486
88	1.65	62.31	1.62	61.90	1490
90	1.63	66.63	1.74	63.47	1486
92	1.64	63.97	1.67	62.52	1489
94	1.58	75.33	1.96	66.26	
96	1.67	58.70	1.53	60.48	1485
98	1.71	53.08	1.38	58.05	1531
100					
102	1.61	69.40	1.81	64.41	1512
104	1.66	60.78	1.58	61.31	
106	1.59	72.28	1.88	65.33	
108	1.68	58.50	1.53	60.40	1504
110	1.68	57.85	1.51	60.13	1506
112	1.68	57.30	1.49	59.91	1508
114	1.65	61.95	1.62	61.76	1501
116	1.64	63.90	1.67	62.49	1497
118	1.71	54.05	1.41	58.50	1509
120	1.68	58.15	1.52	60.26	1506

HM 41

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.67	58.98	1.54	60.60	1501
124	1.67	58.77	1.53	60.51	1500
126	1.65	61.75	1.61	61.69	1499
128	1.65	61.72	1.61	61.68	1502
130	1.70	54.49	1.42	58.69	1505
132	1.71	53.40	1.39	58.20	1512
134	1.70	55.59	1.45	59.18	1510
136	1.70	54.96	1.43	58.90	1514
138	1.69	56.11	1.46	59.40	1510
140	1.65	61.94	1.61	61.76	1507
142	1.69	56.14	1.46	59.41	1504
144	1.64	63.98	1.67	62.52	1499
146	1.62	67.33	1.76	63.71	1493
148	1.65	62.84	1.64	62.10	1493
150	1.68	57.60	1.50	60.03	1498
152	1.64	64.79	1.69	62.81	1497
154	1.64	64.89	1.69	62.85	1504
156	1.67	59.47	1.55	60.79	1507
158	1.71	53.50	1.40	58.25	1509
160	1.71	53.08	1.38	58.05	1513
162	1.69	56.59	1.48	59.60	1509
164	1.65	62.92	1.64	62.13	1503
166	1.65	61.94	1.62	61.76	1500
168	1.67	59.19	1.54	60.68	1514
170	1.69	55.86	1.46	59.29	1518
172	1.65	62.14	1.62	61.84	1516
174	1.63	65.90	1.72	63.21	1514
176	1.59	72.32	1.89	65.35	1502
178	1.59	74.14	1.93	65.91	1499
180	1.60	71.86	1.87	65.20	1501
182	1.64	64.77	1.69	62.81	1504

HM 41

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.67	59.45	1.55	60.79	1519
186	1.71	53.54	1.40	58.26	1521
188	1.71	53.92	1.41	58.43	1522
190	1.70	54.83	1.43	58.84	1517
192	1.69	56.01	1.46	59.36	1525
194	1.70	54.47	1.42	58.68	1536
196	1.64	64.82	1.69	62.83	
198	1.68	58.55	1.53	60.42	
200	1.77	46.61	1.22	54.86	
202					
204	1.63	65.94	1.72	63.23	
206	1.61	69.07	1.80	64.30	
208	1.68	58.54	1.53	60.42	
210	1.67	59.16	1.54	60.67	
212	1.69	56.91	1.48	59.74	
214	1.66	60.90	1.59	61.36	
216	1.75	48.04	1.25	55.61	1537
218	1.77	46.27	1.21	54.68	1531
220	1.77	46.42	1.21	54.76	1533
222	1.75	48.35	1.26	55.77	1530
224	1.79	43.82	1.14	53.33	1542
226	1.78	45.65	1.19	54.35	1537
228	1.79	43.70	1.14	53.26	1535
230	1.79	43.75	1.14	53.28	1539
232	1.76	47.30	1.23	55.22	1528
234	1.70	55.70	1.45	59.22	1508
236	1.78	44.71	1.17	53.83	1577
238	1.70	54.55	1.42	58.72	1514
240	1.71	53.60	1.40	58.29	1517
242	1.72	52.13	1.36	57.61	1518
244	1.71	53.31	1.39	58.16	1515

HM 41

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.56	78.59	2.05	67.20	1512
248	1.76	46.98	1.23	55.06	1530
250	1.84	38.62	1.01	50.18	1551
252	1.96	28.88	0.75	42.96	1559
254	1.72	51.79	1.35	57.45	1506
256	1.72	52.29	1.36	57.69	1510
258	1.66	60.13	1.57	61.06	1500
260	1.78	45.46	1.19	54.24	1518
262	1.85	37.94	0.99	49.73	1542
264	1.76	47.21	1.23	55.18	1541
266	1.81	41.82	1.09	52.17	1545
268	1.79	43.97	1.15	53.41	1541
270	1.88	35.80	0.93	48.28	1570
272	1.78	44.98	1.17	53.97	1537
274	1.73	50.63	1.32	56.90	1522
276	1.73	51.43	1.34	57.28	1521
278	1.69	55.95	1.46	59.33	1517
280	1.57	78.08	2.04	67.06	1484
282	1.57	77.93	2.03	67.02	
284	1.69	56.55	1.47	59.59	
286	1.72	52.32	1.36	57.70	1520
288	1.77	45.80	1.19	54.42	1535
290	1.74	49.63	1.29	56.41	1532
292	1.78	45.65	1.19	54.35	1535
294	1.76	47.99	1.25	55.58	1543
296	1.71	54.11	1.41	58.52	
298	1.72	52.00	1.36	57.55	
300	1.74	49.42	1.29	56.31	

HM 43

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6	1.43	115.35	3.01	75.05	
8	1.50	94.64	2.47	71.16	
10	1.51	92.15	2.40	70.61	1500
12	1.62	68.35	1.78	64.06	1502
14	1.63	66.39	1.73	63.38	1509
16	1.62	67.59	1.76	63.80	1508
18	1.71	54.01	1.41	58.48	1516
20	1.70	54.94	1.43	58.89	1516
22	1.69	56.06	1.46	59.38	1516
24	1.73	50.58	1.32	56.87	1524
26	1.73	51.16	1.33	57.15	1522
28	1.70	54.66	1.43	58.76	1518
30	1.73	51.28	1.34	57.21	1521
32	1.72	52.92	1.38	57.98	1513
34	1.73	50.94	1.33	57.05	1516
36	1.72	52.26	1.36	57.67	1519
38	1.75	48.98	1.28	56.09	1523
40	1.73	50.97	1.33	57.06	1523
42	1.75	48.52	1.27	55.85	1532
44	1.73	51.59	1.35	57.36	1526
46	1.77	46.31	1.21	54.70	1528
48	1.75	48.74	1.27	55.96	1528
50	1.77	46.45	1.21	54.77	1531
52	1.78	44.72	1.17	53.83	1529
54	1.78	45.10	1.18	54.04	1528
56	1.78	45.55	1.19	54.29	1531
58	1.77	46.68	1.22	54.90	1531

HM 43

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.78	45.04	1.17	54.01	1532
62	1.78	44.97	1.17	53.97	1530
64	1.78	45.28	1.18	54.14	1533
66	1.79	43.69	1.14	53.25	1533
68	1.79	43.97	1.15	53.41	1533
70	1.81	42.36	1.10	52.48	1536
72	1.79	44.53	1.16	53.73	1535
74	1.78	45.50	1.19	54.26	1533
76	1.79	44.17	1.15	53.52	1533
78	1.78	45.43	1.18	54.23	1535
80	1.79	44.20	1.15	53.54	1534
82	1.78	45.19	1.18	54.09	1537
84	1.79	44.16	1.15	53.52	1538
86	1.79	44.52	1.16	53.72	1536
88	1.79	44.51	1.16	53.72	1536
90	1.78	45.51	1.19	54.27	1538
92	1.80	42.53	1.11	52.58	1537
94	1.78	45.69	1.19	54.37	1539
96	1.73	51.62	1.35	57.38	
98	1.77	45.88	1.20	54.47	
100	1.82	40.64	1.06	51.45	
102					
104	1.74	50.06	1.31	56.62	
106	1.75	48.08	1.25	55.63	
108	1.80	43.12	1.12	52.93	
110	1.82	41.39	1.08	51.90	
112	1.80	43.01	1.12	52.86	
114	1.79	44.42	1.16	53.66	1526
116	1.81	41.69	1.09	52.09	1549
118	1.79	43.96	1.15	53.40	1533
120	1.80	42.68	1.11	52.67	1544

HM 43

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.81	41.91	1.09	52.22	1544
124	1.80	42.63	1.11	52.64	1510
126	1.84	39.06	1.02	50.46	1545
128	1.82	41.44	1.08	51.93	1541
130	1.84	39.03	1.02	50.44	1541
132	1.84	39.23	1.02	50.56	1542
134	1.82	41.24	1.08	51.81	1543
136	1.83	39.75	1.04	50.89	1542
138	1.82	40.78	1.06	51.54	1543
140	1.80	43.35	1.13	53.06	1539
142	1.74	49.54	1.29	56.36	1543
144	1.74	50.26	1.31	56.72	1543
146	1.78	45.28	1.18	54.14	1544
148	1.80	42.57	1.11	52.61	1542
150	1.81	42.17	1.10	52.37	1540
152	1.82	40.56	1.06	51.40	1540
154	1.82	40.77	1.06	51.53	1539
156	1.83	39.76	1.04	50.90	1538
158	1.82	40.53	1.06	51.38	1539
160	1.81	41.89	1.09	52.21	1540
162	1.81	41.80	1.09	52.15	1541
164	1.84	39.33	1.03	50.63	1541
166	1.83	40.18	1.05	51.16	1541
168	1.82	40.99	1.07	51.66	1541
170	1.80	43.37	1.13	53.07	1541
172	1.81	42.22	1.10	52.40	1543
174	1.82	40.61	1.06	51.43	1542
176	1.81	42.02	1.10	52.28	1542
178	1.83	39.49	1.03	50.73	1542
180	1.85	38.24	1.00	49.93	1542
182	1.83	39.72	1.04	50.88	1542

HM 43

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.80	42.83	1.12	52.76	1543
186	1.85	38.07	0.99	49.82	1545
188	1.82	41.34	1.08	51.88	1536
190	1.82	40.61	1.06	51.43	1543
192	1.83	40.41	1.05	51.31	1542
194	1.80	43.21	1.13	52.98	1544
196	1.73	50.56	1.32	56.87	1539
198					
200					
202	1.79	44.44	1.16	53.68	
204					
206	1.87	35.89	0.94	48.34	
208	1.84	39.43	1.03	50.70	
210	1.91	32.63	0.85	45.97	1569
212	1.90	33.85	0.88	46.88	1567
214	1.92	31.95	0.83	45.45	1566
216	1.92	32.48	0.85	45.85	1567
218	1.90	33.97	0.89	46.97	1565
220	1.89	34.45	0.90	47.32	1566
222	1.90	34.10	0.89	47.07	1566
224	1.91	33.12	0.86	46.34	1562
226	1.90	34.02	0.89	47.01	1564
228	1.91	32.94	0.86	46.21	1565
230	1.90	33.51	0.87	46.63	1567
232	1.91	33.22	0.87	46.41	1565
234	1.90	33.62	0.88	46.71	1567
236	1.90	33.83	0.88	46.87	1569
238	1.89	34.41	0.90	47.29	1568
240	1.91	33.06	0.86	46.30	1566
242	1.88	35.23	0.92	47.88	1567
244	1.89	34.26	0.89	47.18	1567

HM 43

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.90	33.43	0.87	46.57	1565
248	1.92	31.76	0.83	45.30	1566
250	1.93	31.38	0.82	45.00	1569
252	1.89	34.32	0.89	47.23	1569
254	1.90	33.36	0.87	46.52	1570
256	1.93	31.70	0.83	45.25	1572
258	1.86	37.14	0.97	49.20	
260	1.89	34.79	0.91	47.56	
262	1.93	31.21	0.81	44.87	

HM 44

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8	1.54	85.13	2.22	68.94	1505
10	1.56	80.30	2.09	67.68	1503
12	1.57	77.28	2.02	66.83	1503
14	1.55	82.73	2.16	68.32	1499
16	1.63	66.60	1.74	63.46	1503
18	1.61	69.07	1.80	64.30	1503
20	1.65	62.65	1.63	62.03	1503
22	1.67	59.74	1.56	60.90	1507
24	1.64	64.74	1.69	62.80	1503
26	1.67	59.52	1.55	60.81	1506
28	1.67	59.45	1.55	60.79	1508
30	1.70	55.24	1.44	59.02	1509
32	1.62	68.43	1.78	64.08	1496
34	1.64	64.93	1.69	62.87	1502
36	1.65	62.09	1.62	61.82	1506
38	1.60	70.34	1.83	64.72	1494
40	1.60	70.86	1.85	64.88	1491
42	1.60	72.13	1.88	65.29	1486
44	1.59	74.01	1.93	65.87	1484
46	1.58	74.77	1.95	66.10	1488
48	1.68	57.97	1.51	60.18	1505
50	1.69	56.72	1.48	59.66	1507
52	1.64	63.40	1.65	62.31	1497
54	1.65	63.11	1.65	62.20	1498
56	1.59	72.37	1.89	65.36	1489
58	1.61	69.25	1.81	64.36	1491

HM 44

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.56	78.42	2.04	67.16	1483
62	1.60	71.61	1.87	65.12	1484
64	1.60	70.34	1.83	64.72	1490
66	1.62	68.28	1.78	64.03	1487
68	1.65	62.49	1.63	61.97	1495
70	1.74	50.03	1.30	56.61	1507
72	1.60	71.85	1.87	65.20	1490
74	1.62	66.79	1.74	63.52	1495
76	1.74	49.87	1.30	56.53	1528
78	1.80	42.88	1.12	52.79	1538
80	1.78	45.46	1.19	54.24	1537
82	1.77	45.72	1.19	54.38	1538
84	1.81	41.92	1.09	52.22	1545
86	1.85	37.98	0.99	49.76	1586
88	1.90	33.53	0.87	46.64	1579
90	1.90	33.77	0.88	46.82	1573
92	1.92	32.18	0.84	45.62	1576
94	1.85	37.72	0.98	49.58	
96	1.84	38.62	1.01	50.18	
98	1.90	33.93	0.88	46.94	1540
100					
102					
104	1.86	37.56	0.98	49.48	1550
106	1.84	39.33	1.03	50.63	
108	1.90	33.79	0.88	46.84	1571
110	1.89	34.16	0.89	47.11	1568
112	1.89	34.57	0.90	47.41	1565
114	1.94	30.87	0.80	44.60	1559
116	1.89	34.64	0.90	47.46	1565
118	1.85	38.43	1.00	50.05	1552
120	1.89	34.67	0.90	47.48	1564

HM 44

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.91	32.72	0.85	46.04	1566
124	1.86	36.76	0.96	48.94	1556
126	1.87	36.17	0.94	48.53	1558
128	1.86	36.83	0.96	48.99	1559
130	1.90	33.68	0.88	46.76	1557
132	1.88	35.45	0.92	48.03	1557
134	1.87	35.88	0.94	48.34	1556
136	1.90	34.00	0.89	46.99	1557
138	1.88	35.81	0.93	48.29	1559
140	1.87	36.03	0.94	48.44	1558
142	1.86	36.76	0.96	48.94	1559
144	1.88	35.12	0.92	47.80	1555
146	1.88	35.61	0.93	48.15	1557
148	1.88	35.71	0.93	48.22	1558
150	1.87	36.22	0.94	48.57	1557
152	1.89	34.33	0.90	47.23	1558
154	1.88	35.44	0.92	48.03	1558
156	1.88	35.39	0.92	47.99	1558
158	1.92	32.31	0.84	45.72	1552
160	1.90	34.05	0.89	47.03	1555
162	1.89	34.66	0.90	47.47	1559
164	1.87	36.34	0.95	48.65	1559
166	1.87	36.19	0.94	48.55	1561
168	1.91	32.50	0.85	45.87	1558
170	1.89	34.76	0.91	47.54	1562
172	1.88	35.73	0.93	48.23	1562
174	1.95	29.71	0.77	43.65	1557
176	1.89	34.76	0.91	47.55	1565
178	1.91	33.18	0.87	46.38	1566
180	1.92	31.72	0.83	45.27	1566
182	1.92	32.30	0.84	45.72	1568

HM 44

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.90	33.74	0.88	46.80	1567
186	1.91	32.54	0.85	45.90	1568
188	1.93	31.42	0.82	45.03	1571
190	1.89	34.21	0.89	47.14	1573
192	1.92	32.40	0.84	45.79	1573
194	1.91	32.91	0.86	46.18	1576
196	1.86	37.10	0.97	49.17	
198	1.87	36.40	0.95	48.69	
200	1.93	31.07	0.81	44.76	
202					
204	1.90	33.49	0.87	46.62	
206	1.91	33.28	0.87	46.46	
208	1.94	30.55	0.80	44.34	1579
210	1.95	29.83	0.78	43.75	1577
212	1.96	28.87	0.75	42.95	1574
214	1.96	28.84	0.75	42.92	1576
216	1.96	29.37	0.77	43.37	1579
218	1.98	28.00	0.73	42.20	1573
220	1.95	30.05	0.78	43.94	1576
222	1.95	29.95	0.78	43.85	1576
224	1.97	28.27	0.74	42.43	1578
226	1.98	27.87	0.73	42.09	1574
228	1.97	28.63	0.75	42.74	1574
230	2.01	25.72	0.67	40.14	1572
232	2.03	24.70	0.64	39.17	1570
234	1.74	49.96	1.30	56.57	1573
236	1.70	55.46	1.45	59.12	
238	1.71	54.23	1.41	58.58	
240	1.66	61.60	1.61	61.63	
242					
244	1.72	52.32	1.36	57.70	

HM 46

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8	1.49	97.87	2.55	71.85	1494
10	1.46	105.52	2.75	73.34	1490
12	1.47	103.21	2.69	72.91	1490
14	1.50	93.27	2.43	70.86	1494
16	1.51	91.65	2.39	70.50	1498
18	1.54	83.87	2.19	68.62	1491
20	1.47	104.66	2.73	73.18	1487
22	1.53	85.53	2.23	69.04	1488
24	1.55	80.93	2.11	67.85	1489
26	1.61	70.21	1.83	64.67	1496
28	1.66	60.21	1.57	61.09	1506
30	1.66	61.04	1.59	61.41	1508
32	1.67	59.96	1.56	60.99	1506
34	1.63	65.42	1.71	63.04	1499
36	1.62	67.97	1.77	63.93	1497
38	1.64	64.12	1.67	62.57	1499
40	1.67	59.57	1.55	60.83	1507
42	1.70	54.45	1.42	58.68	1512
44	1.69	56.67	1.48	59.64	1509
46	1.71	54.05	1.41	58.49	1512
48	1.71	54.34	1.42	58.63	1517
50	1.71	53.24	1.39	58.13	1517
52	1.76	47.39	1.24	55.27	1532
54	1.77	46.20	1.20	54.64	1534
56	1.79	43.74	1.14	53.28	1543
58	1.74	49.46	1.29	56.32	1529

HM 46

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.77	46.81	1.22	54.97	1536
62	1.77	46.76	1.22	54.94	1537
64	1.77	46.07	1.20	54.57	1536
66	1.82	41.33	1.08	51.87	1537
68	1.83	40.07	1.04	51.10	1536
70	1.80	42.78	1.12	52.73	1542
72	1.82	41.33	1.08	51.87	1542
74	1.82	40.76	1.06	51.52	1540
76	1.82	40.63	1.06	51.44	1540
78	1.82	40.63	1.06	51.44	1542
80	1.84	38.90	1.01	50.35	1543
82	1.82	41.03	1.07	51.68	1543
84	1.83	40.01	1.04	51.06	1543
86	1.82	40.77	1.06	51.53	1546
88	1.83	40.34	1.05	51.27	1546
90	1.85	38.16	1.00	49.88	1546
92	1.84	39.44	1.03	50.70	1548
94	1.83	39.74	1.04	50.89	1549
96	1.78	44.69	1.17	53.81	
98	1.84	39.19	1.02	50.54	1539
100	1.88	35.78	0.93	48.26	
102	1.71	54.27	1.42	58.59	
104	1.59	72.49	1.89	65.40	
106	1.57	76.66	2.00	66.65	
108	1.65	61.88	1.61	61.74	
110	1.64	63.95	1.67	62.51	1538
112	1.55	81.26	2.12	67.94	1559
114	1.45	108.76	2.84	73.93	1557
116	1.54	84.99	2.22	68.91	1554
118	1.49	98.39	2.57	71.95	1556
120	1.54	82.94	2.16	68.38	1555

HM 46

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.62	68.31	1.78	64.04	1560
124	1.75	48.11	1.25	55.64	1555
126	1.81	42.21	1.10	52.40	1556
128	1.85	37.90	0.99	49.70	1553
130	1.84	39.09	1.02	50.47	1552
132	1.88	35.11	0.92	47.80	1554
134	1.86	37.54	0.98	49.47	1544
136	1.85	38.43	1.00	50.05	1552
138	1.83	39.60	1.03	50.80	1551
140	1.85	38.20	1.00	49.90	1553
142	1.83	39.55	1.03	50.77	1552
144	1.84	39.16	1.02	50.52	1551
146	1.84	38.79	1.01	50.28	1551
148	1.86	37.06	0.97	49.14	1548
150	1.83	40.21	1.05	51.18	1545
152	1.84	39.26	1.02	50.59	1546
154	1.85	38.46	1.00	50.07	1546
156	1.84	38.82	1.01	50.31	1544
158	1.84	39.49	1.03	50.73	1543
160	1.85	38.19	1.00	49.89	1546
162	1.83	39.66	1.03	50.84	1552
164	1.86	36.72	0.96	48.91	1545
166	1.86	37.06	0.97	49.14	1547
168	1.84	38.92	1.01	50.37	1550
170	1.83	39.91	1.04	51.00	1551
172	1.83	40.03	1.04	51.07	1551
174	1.83	39.81	1.04	50.93	1549
176	1.88	35.60	0.93	48.14	1547
178	1.86	37.08	0.97	49.16	1553
180	1.84	38.95	1.02	50.38	1553
182	1.87	36.17	0.94	48.54	1556

HM 46

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.86	37.05	0.97	49.14	1555
186	1.86	37.59	0.98	49.50	1556
188	1.86	37.23	0.97	49.26	1556
190	1.84	39.22	1.02	50.56	1558
192	1.86	37.39	0.97	49.36	1559
194	1.78	45.06	1.17	54.02	
196	1.83	39.63	1.03	50.82	
198	1.81	41.60	1.08	52.03	
200					
202	1.84	38.85	1.01	50.32	
204	1.82	40.77	1.06	51.53	
206	1.84	39.02	1.02	50.43	
208	1.89	34.27	0.89	47.19	1561
210	1.88	35.33	0.92	47.95	1563
212	1.89	34.24	0.89	47.17	1562
214	1.88	35.14	0.92	47.81	1560
216	1.91	33.25	0.87	46.44	1561
218	1.88	34.97	0.91	47.69	1561
220	1.88	35.26	0.92	47.90	1556
222	1.89	34.57	0.90	47.41	1558
224	1.88	35.03	0.91	47.73	1562

HM 48

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12	1.53	86.81	2.26	69.36	
14	1.55	80.71	2.10	67.79	
16	1.51	90.31	2.35	70.19	
18	1.49	96.30	2.51	71.52	
20	1.59	72.33	1.89	65.35	
22	1.62	66.78	1.74	63.52	
24	1.65	62.63	1.63	62.02	1414
26	1.63	64.97	1.69	62.88	
28	1.63	66.32	1.73	63.36	1432
30	1.70	55.32	1.44	59.06	1510
32	1.73	51.38	1.34	57.26	1518
34	1.71	53.07	1.38	58.05	1509
36	1.69	56.55	1.47	59.59	1499
38	1.64	63.67	1.66	62.41	1497
40	1.77	46.71	1.22	54.91	1520
42	1.62	67.79	1.77	63.87	1488
44	1.62	67.92	1.77	63.91	1489
46	1.68	57.79	1.51	60.11	1498
48	1.68	57.58	1.50	60.02	1504
50	1.66	60.79	1.59	61.32	1491
52	1.61	69.47	1.81	64.43	1481
54	1.63	66.52	1.73	63.43	1482
56	1.62	68.24	1.78	64.02	1481
58	1.59	72.40	1.89	65.37	1479
60	1.62	66.73	1.74	63.50	1483
62	1.74	50.14	1.31	56.66	1506
64	1.70	54.46	1.42	58.68	1501

HM 48

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
66	1.66	60.34	1.57	61.14	1488
68	1.69	55.83	1.46	59.28	1502
70	1.61	69.18	1.80	64.33	1485
72	1.69	56.66	1.48	59.63	1494
74	1.60	70.72	1.84	64.84	1481
76	1.60	70.68	1.84	64.82	1481
78	1.62	68.18	1.78	64.00	1483
80	1.64	64.80	1.69	62.82	1484
82	1.65	62.77	1.64	62.07	1484
84	1.71	53.67	1.40	58.32	1499
86	1.70	54.44	1.42	58.67	1501
88	1.63	66.42	1.73	63.40	1488
90	1.70	54.57	1.42	58.73	1505
92	1.75	48.36	1.26	55.77	1514
94	1.73	50.75	1.32	56.96	1512
96	1.68	58.14	1.52	60.25	
98	1.71	54.01	1.41	58.48	1539
100	1.74	49.61	1.29	56.40	1563
102					
104	1.78	45.00	1.17	53.99	
106	1.72	51.79	1.35	57.46	
108	1.79	44.59	1.16	53.76	1532
110	1.80	42.87	1.12	52.78	1533
112	1.83	40.21	1.05	51.18	1531
114	1.79	44.38	1.16	53.64	1533
116	1.82	40.85	1.07	51.58	1537
118	1.88	35.81	0.93	48.29	1537
120	1.92	32.25	0.84	45.68	1543
122	1.99	27.32	0.71	41.60	
124	1.84	39.30	1.02	50.61	1542
126	1.81	41.46	1.08	51.95	1540
128	1.84	39.24	1.02	50.57	1539
130	1.85	38.47	1.00	50.08	1539

HM 48

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
132	1.85	37.85	0.99	49.67	1536
134	1.82	40.74	1.06	51.51	1542
136	1.82	40.75	1.06	51.52	1541
138	1.84	39.15	1.02	50.52	1541
140	1.83	40.25	1.05	51.21	1542
142	1.88	35.69	0.93	48.20	1538
144	1.84	38.61	1.01	50.17	1542
146	1.89	34.52	0.90	47.37	1535
148	1.83	40.21	1.05	51.18	1543
150	1.85	38.44	1.00	50.06	1547
152	1.84	38.55	1.01	50.13	1543
154	1.86	37.10	0.97	49.17	1548
156	1.87	35.87	0.94	48.33	1549
158	1.84	38.69	1.01	50.22	1548
160	1.86	37.18	0.97	49.22	1545
162	1.87	36.46	0.95	48.74	1549
164	1.88	34.99	0.91	47.71	1553
166	1.89	34.91	0.91	47.65	1553
168	1.87	36.41	0.95	48.70	1555
170	1.88	35.32	0.92	47.94	1557
172	1.88	35.48	0.93	48.05	1556
174	1.88	35.44	0.92	48.03	1555
176	1.90	34.07	0.89	47.04	1552
178	1.87	36.26	0.95	48.60	1556
180	1.90	34.09	0.89	47.06	1559
182	1.87	36.55	0.95	48.80	1557
184	1.89	34.59	0.90	47.42	1558
186	1.86	37.59	0.98	49.50	1559
188	1.87	36.15	0.94	48.52	1559
190	1.91	32.60	0.85	45.94	1560
192	1.86	36.79	0.96	48.96	1562

HM 48

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
194	1.89	34.61	0.90	47.44	1566
196	1.82	41.10	1.07	51.73	
198	1.87	36.02	0.94	48.43	1552
200	1.91	33.10	0.86	46.32	
202					
204	1.85	38.13	0.99	49.85	
206	1.83	39.92	1.04	51.00	
208	1.90	33.79	0.88	46.84	1561
210	1.96	28.79	0.75	42.88	1580
212	1.91	33.08	0.86	46.31	1561
214	1.94	30.57	0.80	44.35	1565
216	1.91	32.77	0.85	46.07	1568
218	1.93	31.50	0.82	45.10	1566
220	1.93	31.59	0.82	45.17	1567
222	1.93	31.69	0.83	45.24	1569
224	1.92	31.93	0.83	45.43	1568
226	1.95	29.69	0.77	43.64	1568
228	1.93	31.15	0.81	44.82	1566
230	1.94	30.57	0.80	44.35	1567
232	1.93	31.59	0.82	45.17	1568
234	1.93	30.95	0.81	44.66	1568
236	1.89	34.43	0.90	47.31	1563
238	1.92	32.17	0.84	45.62	1566
240	1.91	32.69	0.85	46.01	1569
242	1.93	31.14	0.81	44.81	1569
244	1.93	31.69	0.83	45.24	1578
246	1.95	29.71	0.77	43.65	1576
248	1.78	45.53	1.19	54.28	
250	1.83	39.97	1.04	51.03	
252	1.85	37.84	0.99	49.66	

HM 49

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10	1.51	91.33	2.38	70.43	1500
12	1.51	91.04	2.37	70.36	1492
14	1.47	103.10	2.69	72.89	1483
16	1.45	108.97	2.84	73.97	1478
18	1.46	106.39	2.77	73.50	1478
20	1.47	103.85	2.71	73.03	1478
22	1.53	86.21	2.25	69.21	1482
24	1.56	79.91	2.08	67.57	1486
26	1.59	74.01	1.93	65.87	1490
28	1.65	63.27	1.65	62.26	1497
30	1.65	62.96	1.64	62.15	1494
32	1.67	59.59	1.55	60.84	1496
34	1.64	64.41	1.68	62.68	1492
36	1.60	71.05	1.85	64.94	1486
38	1.60	71.07	1.85	64.95	1485
40	1.66	61.03	1.59	61.41	1492
42	1.66	61.01	1.59	61.40	1498
44	1.63	65.38	1.70	63.03	1491
46	1.59	73.17	1.91	65.61	1488
48	1.65	62.62	1.63	62.02	1490
50	1.77	46.73	1.22	54.92	1528
52	1.60	71.87	1.87	65.21	1494
54	1.80	42.57	1.11	52.61	1535
56	1.77	46.53	1.21	54.82	1535
58	1.58	75.44	1.97	66.30	1481

HM 49

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.63	65.02	1.70	62.90	1493
62	1.62	67.15	1.75	63.65	1489
64	1.72	52.98	1.38	58.01	1509
66	1.69	56.32	1.47	59.49	1500
68	1.65	61.88	1.61	61.74	1495
70	1.62	67.82	1.77	63.88	1488
72	1.60	71.01	1.85	64.93	1483
74	1.63	65.07	1.70	62.92	1491
76	1.62	67.91	1.77	63.91	1483
78	1.59	73.98	1.93	65.86	1481
80	1.59	72.65	1.89	65.45	1482
82	1.62	67.83	1.77	63.88	1484
84	1.68	58.00	1.51	60.20	1492
86	1.72	52.58	1.37	57.82	1509
88	1.68	57.25	1.49	59.88	1501
90	1.64	64.36	1.68	62.66	1487
92	1.70	55.30	1.44	59.05	1497
94	1.71	53.09	1.38	58.06	1503
96	1.55	80.91	2.11	67.84	
98	1.65	62.61	1.63	62.01	1525
100	1.70	54.93	1.43	58.88	1525
102					
104					
106	1.51	91.40	2.38	70.44	
108	1.59	72.70	1.90	65.47	
110	1.62	67.48	1.76	63.76	
112	1.60	72.19	1.88	65.31	
114	1.62	68.11	1.78	63.98	
116	1.64	64.53	1.68	62.72	
118	1.67	59.10	1.54	60.64	1493
120	1.66	60.68	1.58	61.27	1500

HM 49

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.74	50.13	1.31	56.66	1510
124	1.68	57.28	1.49	59.89	1495
126	1.62	67.95	1.77	63.92	1482
128	1.65	62.45	1.63	61.95	1486
130	1.68	58.04	1.51	60.21	1495
132	1.78	45.65	1.19	54.35	1523
134	1.61	69.00	1.80	64.27	1482
136	1.67	58.65	1.53	60.46	1491
138	1.63	65.94	1.72	63.22	1482
140	1.67	59.64	1.55	60.86	1484
142	1.63	64.99	1.69	62.89	1484
144	1.69	56.66	1.48	59.63	1485
146	1.62	66.97	1.75	63.59	1485
148	1.59	73.06	1.91	65.58	1475
150	1.62	67.09	1.75	63.63	1481
152	1.68	57.66	1.50	60.06	1491
154	1.65	62.93	1.64	62.13	1486
156	1.63	65.06	1.70	62.91	1484
158	1.67	58.82	1.53	60.53	1488
160	1.63	66.32	1.73	63.36	1484
162	1.63	65.08	1.70	62.92	1481
164	1.67	59.66	1.56	60.87	1486
166	1.67	59.17	1.54	60.67	1489
168	1.71	53.89	1.41	58.42	1498
170	1.67	59.01	1.54	60.61	1494
172	1.69	56.96	1.49	59.76	1495
174	1.70	54.76	1.43	58.81	1491
176	1.67	59.81	1.56	60.93	1488
178	1.66	60.61	1.58	61.24	1491
180	1.72	52.45	1.37	57.76	1499
182	1.69	56.07	1.46	59.38	1495

HM 49

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.71	54.02	1.41	58.48	1499
186	1.70	55.04	1.44	58.93	1496
188	1.72	52.55	1.37	57.81	1500
190	1.69	56.64	1.48	59.63	1497
192	1.68	57.29	1.49	59.90	1494
194	1.69	56.98	1.49	59.77	1498
196	1.73	51.57	1.34	57.35	1506
198	1.68	58.55	1.53	60.42	1520
200	1.72	52.21	1.36	57.65	1529
202	1.60	72.05	1.88	65.26	
204	1.67	58.86	1.53	60.55	
206	1.70	55.08	1.44	58.95	
208	1.68	58.42	1.52	60.37	
210	1.67	58.93	1.54	60.58	
212	1.66	61.65	1.61	61.65	
214	1.68	57.38	1.50	59.94	
216	1.68	57.50	1.50	59.99	
218	1.69	55.86	1.46	59.29	
220	1.71	53.17	1.39	58.09	1514
222	1.73	50.47	1.32	56.82	1521
224	1.73	51.67	1.35	57.40	1516
226	1.73	51.57	1.34	57.35	1513
228	1.70	54.95	1.43	58.90	1503
230	1.66	61.18	1.60	61.47	1497
232	1.67	60.00	1.56	61.01	1497
234	1.64	64.58	1.68	62.74	1492
236	1.62	67.12	1.75	63.64	1487
238	1.62	68.02	1.77	63.94	1485
240	1.67	59.94	1.56	60.98	1491
242	1.66	60.48	1.58	61.20	1493
244	1.66	61.68	1.61	61.66	1494

HM 49

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.70	55.68	1.45	59.21	1497
248	1.72	52.79	1.38	57.92	1505
250	1.73	51.68	1.35	57.40	1508
252	1.71	54.32	1.42	58.61	1511
254	1.70	55.29	1.44	59.04	1504
256	1.68	57.16	1.49	59.85	1498
258	1.65	62.52	1.63	61.98	1491
260	1.72	52.05	1.36	57.57	1505
262	1.72	51.76	1.35	57.44	1510
264	1.71	53.92	1.41	58.44	1508
266	1.63	65.11	1.70	62.93	1499
268	1.65	61.96	1.62	61.77	1494
270	1.63	65.30	1.70	63.00	1484
272	1.62	67.42	1.76	63.74	1486
274	1.72	52.66	1.37	57.86	1502
276	1.70	55.63	1.45	59.19	1511
278	1.72	52.15	1.36	57.62	1510
280	1.74	50.35	1.31	56.76	1517
282	1.74	49.83	1.30	56.51	1517
284	1.75	49.12	1.28	56.15	1523
286	1.78	45.26	1.18	54.13	1524
288	1.73	50.80	1.32	56.98	1520
290	1.65	62.42	1.63	61.94	
292	1.64	64.85	1.69	62.84	

HM 50

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					1498
14	1.48	98.77	2.58	72.03	1488
16	1.50	94.86	2.47	71.21	1484
18	1.48	99.27	2.59	72.13	1483
20	1.49	96.12	2.51	71.48	1486
22	1.50	95.18	2.48	71.28	1489
24	1.53	87.10	2.27	69.43	1489
26	1.50	94.73	2.47	71.18	1479
28	1.53	86.38	2.25	69.25	1481
30	1.57	76.43	1.99	66.59	1484
32	1.59	73.22	1.91	65.63	1489
34	1.67	59.91	1.56	60.97	1495
36	1.65	62.08	1.62	61.81	1496
38	1.66	60.67	1.58	61.27	1498
40	1.60	70.75	1.84	64.85	1490
42	1.60	71.20	1.86	64.99	1484
44	1.60	71.13	1.85	64.97	1487
46	1.63	65.25	1.70	62.98	1494
48	1.65	63.08	1.64	62.19	1495
50	1.59	73.74	1.92	65.78	1486
52	1.64	64.31	1.68	62.64	1490
54	1.62	68.19	1.78	64.00	1493
56	1.82	41.10	1.07	51.73	1542
58	1.74	49.60	1.29	56.39	1491

HM 50

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.73	50.63	1.32	56.90	1524
62	1.80	42.81	1.12	52.75	1541
64	1.60	70.68	1.84	64.83	1489
66	1.63	65.82	1.72	63.18	1490
68	1.61	68.71	1.79	64.18	1489
70	1.62	67.33	1.76	63.71	1494
72	1.69	55.91	1.46	59.32	1504
74	1.66	61.33	1.60	61.53	1498
76	1.66	61.45	1.60	61.57	1493
78	1.67	59.29	1.55	60.72	1496
80	1.74	50.39	1.31	56.78	
82	1.60	70.32	1.83	64.71	1484
84	1.58	74.88	1.95	66.13	1479
86	1.59	73.48	1.92	65.70	1482
88	1.58	74.21	1.94	65.93	1484
90	1.60	70.65	1.84	64.81	1489
92	1.67	59.69	1.56	60.88	1499
94	1.68	57.17	1.49	59.85	1504
96	1.63	66.39	1.73	63.38	
98	1.62	67.14	1.75	63.64	1517
100	1.75	48.77	1.27	55.98	
102					
104	1.52	88.36	2.30	69.73	
106	1.56	79.04	2.06	67.33	
108	1.67	58.73	1.53	60.49	
110	1.65	62.22	1.62	61.87	
112	1.62	66.86	1.74	63.55	
114	1.59	73.12	1.91	65.60	
116	1.61	69.02	1.80	64.28	
118	1.61	69.96	1.82	64.59	
120	1.61	70.25	1.83	64.68	

HM 50

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.64	64.82	1.69	62.83	
124	1.67	59.20	1.54	60.68	1476
126	1.67	59.14	1.54	60.66	1490
128	1.73	50.83	1.33	56.99	1509
130	1.72	51.85	1.35	57.48	1505
132	1.62	67.43	1.76	63.74	1486
134	1.65	62.50	1.63	61.97	1489
136	1.65	62.37	1.63	61.92	1488
138	1.66	60.20	1.57	61.08	1486
140	1.65	61.94	1.61	61.76	1486
142	1.66	60.80	1.59	61.32	1486
144	1.67	59.85	1.56	60.95	1487
146	1.65	62.81	1.64	62.09	1484
148	1.65	62.49	1.63	61.97	1487
150	1.65	62.84	1.64	62.10	1487
152	1.64	63.69	1.66	62.42	1485
154	1.70	54.91	1.43	58.88	1492
156	1.66	60.45	1.58	61.18	1489
158	1.69	56.60	1.48	59.61	1490
160	1.69	56.98	1.49	59.77	1489
162	1.69	56.80	1.48	59.69	1490
164	1.68	58.55	1.53	60.42	1486
166	1.67	59.86	1.56	60.95	1488
168	1.67	59.34	1.55	60.74	1487
170	1.68	57.96	1.51	60.18	1492
172	1.67	59.36	1.55	60.75	1492
174	1.70	55.52	1.45	59.15	1489
176	1.67	59.77	1.56	60.91	1490
178	1.67	59.19	1.54	60.68	1487
180	1.67	59.49	1.55	60.80	1490
182	1.66	61.05	1.59	61.42	1487

HM 50

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.67	58.72	1.53	60.49	1489
186	1.70	54.68	1.43	58.77	1497
188	1.69	56.08	1.46	59.39	1493
190	1.67	59.81	1.56	60.93	1489
192	1.67	59.75	1.56	60.91	1492
194	1.69	56.26	1.47	59.46	1497
196	1.64	64.69	1.69	62.78	
198	1.70	54.85	1.43	58.85	
200	1.73	50.73	1.32	56.95	1485
202					
204					
206	1.56	78.70	2.05	67.23	
208	1.65	62.72	1.64	62.06	
210	1.66	60.30	1.57	61.12	
212	1.74	50.37	1.31	56.77	
214	1.72	52.94	1.38	57.99	
216	1.70	54.92	1.43	58.88	
218	1.69	56.68	1.48	59.64	
220	1.69	56.08	1.46	59.38	
222	1.69	56.80	1.48	59.69	1480
224	1.72	52.89	1.38	57.97	1497
226	1.70	54.45	1.42	58.67	1496
228	1.69	56.68	1.48	59.64	1495
230	1.71	53.01	1.38	58.02	1495
232	1.72	52.65	1.37	57.86	1490
234	1.69	56.70	1.48	59.65	1489
236	1.71	53.70	1.40	58.34	1494
238	1.68	57.45	1.50	59.97	1488
240	1.65	62.48	1.63	61.96	1488
242	1.71	54.26	1.41	58.59	1493
244	1.69	56.85	1.48	59.72	1491

HM 50

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.70	55.14	1.44	58.98	1491
248	1.71	53.82	1.40	58.39	1491
250	1.69	55.86	1.46	59.29	1491
252	1.71	53.38	1.39	58.19	1492
254	1.71	54.27	1.41	58.59	1493
256	1.72	52.81	1.38	57.93	1495
258	1.71	53.09	1.38	58.06	1494
260	1.71	53.27	1.39	58.14	1493
262	1.70	55.53	1.45	59.15	1494
264	1.69	56.88	1.48	59.73	1494
266	1.70	55.22	1.44	59.01	1493
268	1.68	57.41	1.50	59.95	1492
270	1.70	55.63	1.45	59.19	1473
272	1.74	49.80	1.30	56.49	1502
274	1.73	50.64	1.32	56.90	1506
276	1.74	49.91	1.30	56.55	1507
278	1.71	53.05	1.38	58.04	1508
280	1.64	64.21	1.67	62.61	
282	1.71	53.67	1.40	58.32	1530
284	1.75	48.59	1.27	55.89	1529

HM 51

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					1495
10	1.68	57.43	1.50	59.96	1497
12	1.72	52.10	1.36	57.60	1497
14	1.75	49.05	1.28	56.12	1498
16	1.71	53.35	1.39	58.18	1495
18	1.67	59.72	1.56	60.89	1490
20	1.74	49.98	1.30	56.58	1499
22	1.74	50.06	1.31	56.62	1498
24	1.70	55.17	1.44	58.99	1492
26	1.72	52.35	1.37	57.72	1499
28	1.74	49.63	1.29	56.41	1502
30	1.75	49.08	1.28	56.13	1504
32	1.78	45.55	1.19	54.29	1512
34	1.76	47.36	1.23	55.25	1508
36	1.78	45.28	1.18	54.14	1511
38	1.81	41.60	1.08	52.03	1520
40	1.82	41.44	1.08	51.93	1523
42	1.87	36.11	0.94	48.50	1544
44	1.88	35.42	0.92	48.02	1538
46	1.89	34.66	0.90	47.47	1540
48	1.91	32.71	0.85	46.03	1538
50	1.89	34.29	0.89	47.21	1540
52	1.89	34.24	0.89	47.17	1541
54	1.89	34.51	0.90	47.36	1541
56	1.89	34.48	0.90	47.34	1539
58	1.89	34.35	0.90	47.25	1540

HM 51

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.92	32.49	0.85	45.86	1541
62	1.89	34.56	0.90	47.40	1539
64	1.89	34.74	0.91	47.53	1539
66	1.89	34.36	0.90	47.25	1542
68	1.89	34.45	0.90	47.32	1542
70	1.88	35.45	0.92	48.03	1543
72	1.89	34.45	0.90	47.32	1544
74	1.89	34.86	0.91	47.62	1543
76	1.89	34.35	0.90	47.25	1544
78	1.90	33.39	0.87	46.54	1544
80	1.91	32.85	0.86	46.14	1545
82	1.89	34.80	0.91	47.57	1544
84	1.90	33.66	0.88	46.74	1544
86	1.91	32.91	0.86	46.18	1545
88	1.90	33.86	0.88	46.89	1549
90	1.90	33.70	0.88	46.78	1549
92	1.91	32.98	0.86	46.23	1549
94					
96					
98					
100	1.77	46.52	1.21	54.81	
102	1.74	49.31	1.29	56.25	
104	1.75	48.02	1.25	55.59	
106	1.83	40.44	1.05	51.32	1544
108	1.85	38.47	1.00	50.08	1540
110	1.84	38.80	1.01	50.29	1544
112	1.84	39.02	1.02	50.43	1542
114	1.85	38.50	1.00	50.10	1542
116	1.83	39.66	1.03	50.84	1543
118	1.83	39.97	1.04	51.03	1543
120	1.83	40.16	1.05	51.15	1543

HM 51

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.83	40.04	1.04	51.07	1544
124	1.83	40.11	1.05	51.12	1545
126	1.87	36.44	0.95	48.72	1546
128	1.84	38.97	1.02	50.40	1547
130	1.81	41.51	1.08	51.98	1550
132	1.73	50.90	1.33	57.03	
134	1.83	40.22	1.05	51.19	1529
136	1.87	36.12	0.94	48.50	

HM 52

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					1513
8	1.68	58.57	1.53	60.43	
10	1.66	60.99	1.59	61.39	1587
12	1.67	59.71	1.56	60.89	
14					
16					1428
18					1479
20					1496
22					1486
24					1492
26					1494
28					1501
30					1510
32					1500
34					1492
36					1494
38					1502
40					1495
42					1489
44					1494
46					1500
48					1499
50					1552
52					1556
54					1550
56					1502
58					1534
60					1556

HM 52

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
62					1495
64					1494
66					1496
68					1501
70					1508
72					1507
74					1504
76					1498
78					1488
80					1491
82					1495
84					1498
86					1492
88					1492
90					1496
92					1516
94					1522
96					
98					
100					1400
102					1499
104					
106	1.86	37.21	0.97	49.24	
108	1.74	49.38	1.29	56.29	1414
110	1.77	46.71	1.22	54.91	
112	1.84	38.58	1.01	50.15	
114	1.70	54.55	1.42	58.72	
116	1.69	55.81	1.46	59.27	
118	1.69	56.73	1.48	59.67	1486
120	1.70	54.42	1.42	58.66	1487
122	1.69	55.81	1.46	59.27	1487
124	1.72	52.94	1.38	57.99	1489

HM 52

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
126	1.72	51.84	1.35	57.48	1492
128	1.72	52.88	1.38	57.96	1491
130	1.77	46.46	1.21	54.78	1499
132	1.77	46.47	1.21	54.79	1506
134	1.82	40.74	1.06	51.51	1517
136	1.76	47.44	1.24	55.30	1503
138	1.70	54.66	1.43	58.77	1489
140	1.71	54.08	1.41	58.51	1490
142	1.76	47.99	1.25	55.58	1500
144	1.79	44.16	1.15	53.52	1508
146	1.81	41.55	1.08	52.00	1531
148	1.68	57.40	1.50	59.95	1486
150	1.76	46.85	1.22	54.99	1498
152	1.70	55.14	1.44	58.98	1489
154	1.71	54.14	1.41	58.53	1487
156	1.72	51.76	1.35	57.44	1489
158	1.73	51.27	1.34	57.21	1490
160	1.87	36.12	0.94	48.50	1502
162	1.69	56.54	1.47	59.58	1484
164	1.67	58.74	1.53	60.50	1482
166	1.67	58.62	1.53	60.45	1483
168	1.73	50.61	1.32	56.89	1492
170	1.74	50.07	1.31	56.62	1494
172	1.72	51.90	1.35	57.51	1493
174	1.68	58.47	1.52	60.39	1486
176	1.71	53.75	1.40	58.36	1489
178	1.72	52.01	1.36	57.56	1492
180	1.69	56.45	1.47	59.55	1488
182	1.71	53.70	1.40	58.34	1490
184	1.80	43.28	1.13	53.02	1504
186	1.75	48.43	1.26	55.80	1500
188	1.77	46.72	1.22	54.92	1502
190	1.76	47.64	1.24	55.40	1499

HM 52

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
192	1.75	48.73	1.27	55.96	1497
194	1.74	49.95	1.30	56.57	1496
196					
198					
200					
202					
204					
206					
208	1.49	96.18	2.51	71.49	
210	1.52	88.01	2.29	69.65	
212	1.58	75.91	1.98	66.44	
214	1.60	71.58	1.87	65.11	
216	1.62	68.20	1.78	64.01	
218	1.65	63.12	1.65	62.21	
220	1.69	55.93	1.46	59.32	
222	1.72	52.91	1.38	57.97	
224	1.67	58.74	1.53	60.50	
226	1.69	57.09	1.49	59.82	
228	1.69	56.15	1.46	59.42	
230	1.69	56.90	1.48	59.74	
232	1.72	52.64	1.37	57.85	
234	1.71	54.08	1.41	58.51	
236	1.73	51.27	1.34	57.21	1501
238	1.71	53.28	1.39	58.15	1501
240	1.70	55.40	1.44	59.09	1497
242	1.69	57.09	1.49	59.82	1495
244	1.72	52.68	1.37	57.87	1503
246	1.73	51.04	1.33	57.10	1507
248	1.74	50.38	1.31	56.78	1515
250	1.75	49.08	1.28	56.13	1513

HM 53

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14					
16					
18					
20					
22	1.48	99.39	2.59	72.16	1495
24	1.50	94.87	2.47	71.21	1491
26	1.48	99.86	2.60	72.25	1491
28	1.49	97.38	2.54	71.74	1487
30	1.48	99.32	2.59	72.14	1487
32	1.49	98.19	2.56	71.91	1488
34	1.49	96.84	2.52	71.63	1487
36	1.50	94.10	2.45	71.05	1489
38	1.51	92.01	2.40	70.58	1487
40	1.49	95.78	2.50	71.41	1481
42	1.50	94.99	2.48	71.24	1481
44	1.53	85.68	2.23	69.08	1484
46	1.56	80.19	2.09	67.65	1491
48	1.58	75.14	1.96	66.21	1490
50	1.56	78.42	2.04	67.16	1489
52	1.60	71.71	1.87	65.15	1494
54	1.65	62.24	1.62	61.87	1504
56	1.64	64.58	1.68	62.74	1502
58	1.62	67.32	1.76	63.71	1494

HM 53

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.60	71.47	1.86	65.08	1488
62	1.59	73.16	1.91	65.61	1488
64	1.61	69.33	1.81	64.38	1492
66	1.62	66.92	1.74	63.57	1493
68	1.61	69.28	1.81	64.37	1493
70	1.60	71.25	1.86	65.01	1487
72	1.60	71.15	1.86	64.98	1491
74	1.64	63.57	1.66	62.37	1495
76	1.56	79.91	2.08	67.57	1485
78	1.77	45.73	1.19	54.39	1552
80	1.82	41.40	1.08	51.91	1557
82	1.84	38.56	1.01	50.13	1560
84	1.84	38.79	1.01	50.28	1559
86	1.80	42.55	1.11	52.60	1550
88	1.54	84.12	2.19	68.69	1494
90	1.77	46.77	1.22	54.95	1531
92	1.85	38.23	1.00	49.92	1557
94	1.57	76.44	1.99	66.59	1489
96	1.57	76.49	1.99	66.60	
98	1.63	66.18	1.73	63.31	
100	1.72	52.08	1.36	57.59	
102					
104	1.59	73.72	1.92	65.78	
106	1.91	33.27	0.87	46.45	
108	1.76	47.43	1.24	55.29	1509
110	1.75	48.33	1.26	55.75	1499
112	1.68	57.98	1.51	60.19	1488
114	1.67	59.71	1.56	60.89	1487
116	1.67	59.57	1.55	60.83	1484
118	1.67	58.93	1.54	60.58	1486
120	1.66	60.22	1.57	61.09	1483

HM 53

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.66	60.71	1.58	61.28	1483
124	1.67	59.98	1.56	61.00	1484
126	1.65	62.51	1.63	61.98	1485
128	1.69	56.03	1.46	59.36	1490
130	1.75	48.28	1.26	55.73	1504
132	1.76	47.66	1.24	55.41	1508
134	1.74	49.77	1.30	56.48	1502
136	1.69	56.69	1.48	59.65	1494
138	1.68	58.12	1.52	60.24	1488
140	1.75	48.55	1.27	55.87	1502
142	1.76	47.48	1.24	55.32	1503
144	1.71	54.13	1.41	58.53	1494
146	1.68	58.29	1.52	60.31	1487
148	1.73	51.29	1.34	57.22	1494
150	1.71	54.25	1.41	58.58	1490
152	1.65	61.89	1.61	61.74	1484
154	1.65	62.71	1.64	62.05	1483
156	1.69	56.48	1.47	59.56	1485
158	1.68	57.85	1.51	60.13	1485
160	1.67	59.01	1.54	60.61	1484
162	1.69	56.67	1.48	59.64	1486
164	1.71	54.00	1.41	58.47	1489
166	1.70	54.87	1.43	58.86	1489
168	1.71	54.33	1.42	58.62	1491
170	1.72	51.76	1.35	57.44	1496
172	1.77	46.62	1.22	54.86	1505
174	1.83	40.11	1.05	51.12	1518
176	1.75	48.46	1.26	55.82	1503
178	1.70	54.87	1.43	58.86	1489
180	1.68	57.79	1.51	60.11	1485
182	1.68	57.30	1.49	59.91	1490

HM 53

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.75	48.72	1.27	55.96	1502
186	1.74	49.90	1.30	56.54	1502
188	1.80	42.64	1.11	52.65	1517
190	1.82	40.89	1.07	51.60	1525
192	1.97	28.08	0.73	42.27	1560
194	1.95	29.47	0.77	43.45	1563
196	2.11	19.75	0.51	33.99	
198	2.16	17.19	0.45	30.95	
200	2.23	14.01	0.37	26.75	

HM 54

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14	1.45	111.48	2.91	74.40	1494
16	1.45	110.23	2.87	74.19	1484
18	1.49	95.74	2.50	71.40	1484
20	1.46	105.83	2.76	73.40	1484
22	1.47	103.22	2.69	72.91	1486
24	1.45	110.24	2.87	74.19	1483
26	1.43	118.42	3.09	75.54	1479
28	1.41	126.21	3.29	76.69	1477
30	1.42	119.52	3.12	75.71	1477
32	1.42	120.09	3.13	75.79	1477
34	1.43	115.67	3.02	75.10	1477
36	1.41	126.32	3.29	76.71	1476
38	1.43	117.70	3.07	75.42	1475
40	1.47	102.30	2.67	72.73	1475
42	1.54	83.04	2.17	68.41	1481
44	1.54	83.30	2.17	68.47	1481
46	1.57	77.53	2.02	66.90	1483
48	1.61	70.19	1.83	64.67	1491
50	1.65	62.95	1.64	62.14	1493
52	1.62	66.83	1.74	63.54	1493
54	1.60	70.75	1.84	64.85	1487
56	1.57	77.49	2.02	66.89	1479
58	1.55	82.04	2.14	68.14	1476
60	1.58	75.95	1.98	66.45	1483
62	1.66	60.78	1.58	61.31	1496

HM 54

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
64	1.65	62.59	1.63	62.01	1493
66	1.60	71.16	1.86	64.98	1484
68	1.59	72.79	1.90	65.49	1486
70	1.59	72.66	1.89	65.45	1489
72	1.66	60.75	1.58	61.30	1524
74	1.82	41.14	1.07	51.76	1530
76	1.72	51.77	1.35	57.45	1479
78	1.61	68.50	1.79	64.11	1488
80	1.61	69.70	1.82	64.51	1488
82	1.68	58.08	1.51	60.23	1503
84	1.65	63.12	1.65	62.20	1495
86	1.67	59.74	1.56	60.90	1495
88	1.64	64.64	1.69	62.76	1489
90	1.61	69.96	1.82	64.59	1483
92	1.60	70.80	1.85	64.86	1485
94	1.61	68.68	1.79	64.17	1484
96					
98	1.66	60.51	1.58	61.21	1508
100	1.71	53.58	1.40	58.28	1539
102	1.67	58.69	1.53	60.48	1532
104	1.65	61.72	1.61	61.67	
106	1.65	61.80	1.61	61.71	
108	1.62	67.06	1.75	63.62	1489
110	1.68	57.77	1.51	60.10	1495
112	1.67	59.95	1.56	60.99	1502
114	1.59	72.71	1.90	65.47	1486
116	1.66	60.29	1.57	61.12	1496
118	1.75	48.86	1.27	56.02	1496
120	1.61	68.97	1.80	64.26	1483
122	1.59	72.84	1.90	65.51	1482
124	1.61	69.27	1.81	64.36	1483
126	1.61	68.54	1.79	64.12	1484
128	1.63	65.58	1.71	63.10	1485

HM 54

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
130	1.63	66.58	1.74	63.45	1485
132					1538
134	1.64	64.36	1.68	62.66	1493
136	1.72	52.26	1.36	57.68	1511
138	1.68	57.17	1.49	59.85	1499
140	1.61	69.60	1.81	64.47	1485
142	1.66	60.40	1.57	61.16	1494
144	1.71	53.79	1.40	58.38	1504
146	1.79	43.69	1.14	53.25	1525
148	1.83	40.37	1.05	51.28	1530
150	1.80	42.55	1.11	52.59	1528
152	1.91	33.23	0.87	46.42	1566
154	1.90	33.56	0.88	46.67	1563
156	1.89	34.42	0.90	47.30	1563
158	1.89	34.18	0.89	47.12	1562
160	1.94	30.93	0.81	44.65	1561
162	1.88	35.59	0.93	48.13	1567
164	1.90	33.89	0.88	46.91	1563
166	1.89	34.67	0.90	47.48	1561
168	1.91	33.27	0.87	46.45	1565
170	1.93	31.56	0.82	45.15	1564
172	1.90	33.77	0.88	46.83	1564
174	1.91	32.99	0.86	46.24	1563
176	1.90	33.51	0.87	46.63	1564
178	1.94	30.89	0.81	44.61	1565
180	1.90	34.07	0.89	47.04	1565
182	1.91	32.72	0.85	46.04	1567
184	1.91	32.56	0.85	45.91	1568
186	1.95	29.57	0.77	43.54	1560
188	1.91	33.04	0.86	46.28	1570
190	1.91	33.07	0.86	46.30	1571
192	1.91	33.12	0.86	46.34	1571
194	1.87	36.31	0.95	48.63	

HM 54

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
196	1.87	35.93	0.94	48.37	1608
198	1.92	31.84	0.83	45.36	1623
200					
202					
204					
206	1.94	30.82	0.80	44.55	1528
208	1.98	27.76	0.72	41.99	1527
210	1.92	32.01	0.83	45.49	1573
212	1.95	30.00	0.78	43.89	1571
214	1.93	30.99	0.81	44.69	1569
216	1.94	30.43	0.79	44.24	1569
218	1.95	29.53	0.77	43.50	1569
220	1.93	31.71	0.83	45.26	1570
222	1.91	32.52	0.85	45.89	1571
224	1.89	34.28	0.89	47.19	1567
226	1.91	32.92	0.86	46.19	1523
228	1.91	33.05	0.86	46.29	1570
230	1.92	31.98	0.83	45.47	1571
232	1.92	32.34	0.84	45.75	1570
234	1.90	33.54	0.87	46.65	1568
236	1.93	31.28	0.82	44.92	1573
238	1.94	30.89	0.81	44.61	1573
240	1.92	31.96	0.83	45.45	1552
242	1.97	28.37	0.74	42.52	1571
244	1.94	30.44	0.79	44.25	1518
246	1.95	29.96	0.78	43.86	1521
248	2.01	25.92	0.68	40.33	1543
250	2.03	24.70	0.64	39.17	1557
252	2.03	24.35	0.63	38.84	1562
254	1.93	31.42	0.82	45.03	
256	1.94	30.30	0.79	44.13	1573

Hm 56

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4	1.77	46.82	1.22	54.97	
6	1.77	45.74	1.19	54.39	
8	1.71	53.51	1.40	58.25	1512
10	1.67	59.63	1.55	60.86	1446
12	1.65	62.96	1.64	62.15	
14	1.64	63.78	1.66	62.45	1594
16	1.64	64.42	1.68	62.68	1494
18	1.62	68.05	1.77	63.96	1493
20	1.71	54.26	1.41	58.59	1503
22	1.85	38.23	1.00	49.92	1551
24	1.65	61.93	1.61	61.76	1486
26	1.69	57.09	1.49	59.82	1490
28	1.67	59.32	1.55	60.74	1488
30	1.74	49.66	1.29	56.42	1503
32	1.73	50.86	1.33	57.01	1499
34	1.73	51.17	1.33	57.16	1500
36	1.75	48.11	1.25	55.64	1494
38	1.71	53.58	1.40	58.28	1488
40	1.67	59.50	1.55	60.81	1485
42	1.68	58.10	1.51	60.24	1486
44	1.68	57.42	1.50	59.96	1484
46	1.68	58.40	1.52	60.36	1484
48	1.68	58.44	1.52	60.38	1482
50	1.67	58.63	1.53	60.45	1484
52	1.70	54.91	1.43	58.88	1487
54	1.77	46.04	1.20	54.55	1504
56	1.76	47.30	1.23	55.22	1507
58	1.74	49.54	1.29	56.36	1501

Hm 56

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.68	58.48	1.52	60.39	1486
62	1.77	46.59	1.21	54.85	1507
64	1.72	51.80	1.35	57.46	1498
66	1.68	57.56	1.50	60.01	1486
68	1.72	52.50	1.37	57.78	1490
70	1.72	52.08	1.36	57.59	1491
72	1.66	60.70	1.58	61.28	1482
74	1.67	59.78	1.56	60.92	1483
76	1.67	59.65	1.56	60.87	1485
78	1.69	56.39	1.47	59.52	1487
80	1.69	56.86	1.48	59.72	1488
82	1.70	55.44	1.45	59.11	1489
84	1.71	54.04	1.41	58.49	1489
86	1.75	48.14	1.26	55.66	1495
88	1.76	47.86	1.25	55.52	1502
90	1.82	40.96	1.07	51.64	1519
92	1.75	49.12	1.28	56.15	1504
94	1.69	56.38	1.47	59.52	1489
96					
98					
100					
102					
104	1.56	79.76	2.08	67.53	
106	1.62	67.08	1.75	63.62	
108	1.65	62.10	1.62	61.82	1497
110	1.63	66.46	1.73	63.41	1495
112	1.74	49.81	1.30	56.50	1504
114	1.59	72.72	1.90	65.47	1482
116	1.59	72.32	1.89	65.35	1484
118	1.65	63.28	1.65	62.26	1493
120	1.65	62.22	1.62	61.87	1491

Hm 56

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.64	64.27	1.68	62.63	1493
124	1.61	70.29	1.83	64.70	1486
126	1.67	59.28	1.55	60.72	1495
128	1.61	68.48	1.79	64.10	1488
130	1.60	70.48	1.84	64.76	1485
132	1.68	57.87	1.51	60.14	1496
134	1.67	60.09	1.57	61.04	1495
136	1.74	49.26	1.28	56.23	1509
138	1.66	60.80	1.59	61.32	1501
140	1.66	61.00	1.59	61.40	1493
142	1.64	63.41	1.65	62.31	1491
144	1.64	63.38	1.65	62.30	1490
146	1.66	60.86	1.59	61.34	1495
148	1.66	60.94	1.59	61.37	1494
150	1.67	59.06	1.54	60.63	1499
152	1.69	55.81	1.46	59.27	1499
154	1.70	54.58	1.42	58.73	1501
156	1.67	59.28	1.55	60.72	1500
158	1.67	59.97	1.56	60.99	1499
160	1.65	62.36	1.63	61.92	1489
162	1.67	59.63	1.55	60.86	1494
164	1.70	54.57	1.42	58.73	1504
166	1.70	54.87	1.43	58.86	1506
168	1.68	57.93	1.51	60.17	1501
170	1.65	63.20	1.65	62.23	1493
172	1.67	59.78	1.56	60.92	1497
174	1.73	51.03	1.33	57.09	1500
176	1.67	59.33	1.55	60.74	1504
178	1.66	60.19	1.57	61.08	1500
180	1.63	65.55	1.71	63.09	1497
182	1.64	63.32	1.65	62.28	1495

Hm 56

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.63	65.18	1.70	62.95	1495
186	1.65	62.53	1.63	61.98	1501
188	1.70	54.82	1.43	58.84	1510
190	1.69	56.23	1.47	59.45	1513
192	1.71	54.19	1.41	58.56	1516
194	1.63	65.26	1.70	62.99	
196	1.69	56.78	1.48	59.68	1456
198	1.69	57.02	1.49	59.79	
200					
202	1.86	37.34	0.97	49.33	
204	1.87	36.47	0.95	48.74	
206	1.74	49.76	1.30	56.47	
208	1.70	54.46	1.42	58.68	
210	1.72	52.56	1.37	57.81	
212	1.73	50.71	1.32	56.94	
214	1.76	47.07	1.23	55.10	
216	1.76	47.31	1.23	55.23	
218	1.75	48.99	1.28	56.09	
220	1.85	37.89	0.99	49.69	1509
222	1.84	39.05	1.02	50.45	1509
224	1.82	41.17	1.07	51.77	1508
226	1.79	43.95	1.15	53.40	1474
228	1.75	48.26	1.26	55.72	1473
230	1.75	48.66	1.27	55.93	1486
232	1.81	42.39	1.11	52.50	1507
234	1.82	40.79	1.06	51.54	1500
236	1.81	41.89	1.09	52.20	1500
238	1.79	43.85	1.14	53.34	1500
240	1.75	48.30	1.26	55.74	1483
242	1.71	53.61	1.40	58.30	1472
244	1.71	54.14	1.41	58.53	1482

Hm 56

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.72	52.39	1.37	57.74	1483
248	1.79	44.59	1.16	53.76	1500
250	1.81	41.80	1.09	52.15	1510
252	1.81	41.52	1.08	51.98	1507
254	1.83	40.09	1.05	51.10	1511
256	1.79	44.36	1.16	53.63	1510
258	1.80	43.17	1.13	52.96	1510
260	1.84	39.26	1.02	50.59	1516
262	1.79	44.22	1.15	53.55	1508
264	1.82	41.39	1.08	51.90	1511
266	1.80	43.34	1.13	53.05	1507
268	1.77	45.74	1.19	54.39	1501
270	1.75	48.31	1.26	55.74	1498
272	1.72	51.88	1.35	57.50	1489
274	1.76	47.52	1.24	55.34	1498
276	1.75	48.08	1.25	55.63	1501
278	1.82	40.79	1.06	51.54	1527
280	1.80	42.97	1.12	52.84	1511
282	1.78	44.86	1.17	53.91	1505
284	1.86	37.28	0.97	49.29	

HM 58

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14					
16					
18	1.52	87.85	2.29	69.61	1506
20	1.52	88.73	2.31	69.82	1496
22	1.51	91.50	2.39	70.46	1489
24	1.49	95.75	2.50	71.40	1488
26	1.56	78.67	2.05	67.23	1490
28	1.55	81.79	2.13	68.08	1488
30	1.53	85.79	2.24	69.11	1487
32	1.58	75.21	1.96	66.23	1484
34	1.57	76.32	1.99	66.56	1489
36	1.58	74.58	1.94	66.04	1492
38	1.56	78.56	2.05	67.20	1490
40	1.56	79.83	2.08	67.55	1489
42	1.55	81.04	2.11	67.88	1490
44	1.54	84.60	2.21	68.81	1488
46	1.52	89.56	2.34	70.02	1485
48	1.55	82.77	2.16	68.34	1484
50	1.53	85.38	2.23	69.00	1481
52	1.53	86.49	2.26	69.28	1479
54	1.50	94.45	2.46	71.12	1477
56	1.51	92.59	2.41	70.71	1477
58	1.53	87.23	2.27	69.46	1479

HM 58

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.54	83.30	2.17	68.47	1486
62	1.60	70.98	1.85	64.92	1490
64	1.58	75.86	1.98	66.42	1486
66	1.57	76.87	2.00	66.72	1484
68	1.53	85.83	2.24	69.12	1478
70	1.56	78.39	2.04	67.15	1479
72	1.55	82.43	2.15	68.25	1478
74	1.57	77.50	2.02	66.89	1486
76	1.62	66.93	1.75	63.57	1495
78	1.62	67.95	1.77	63.92	1497
80	1.64	64.15	1.67	62.58	1502
82	1.68	58.17	1.52	60.27	1506
84	1.72	51.95	1.35	57.53	1515
86	1.74	50.21	1.31	56.70	1519
88	1.75	48.33	1.26	55.76	1526
90	1.77	46.00	1.20	54.53	1526
92	1.78	45.45	1.18	54.23	1528
94	1.75	48.85	1.27	56.02	1532
96	1.74	49.88	1.30	56.53	
98	1.79	43.97	1.15	53.41	
100					
102					
104					
106					
108	1.81	42.45	1.11	52.53	1529
110	1.80	43.03	1.12	52.87	1538
112	1.80	43.43	1.13	53.11	1539
114	1.83	40.16	1.05	51.15	1535
116	1.81	41.94	1.09	52.24	1535
118	1.81	41.79	1.09	52.14	1535
120	1.80	43.04	1.12	52.88	1534

HM 58

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.81	42.29	1.10	52.44	1535
124	1.79	43.99	1.15	53.42	1532
126	1.80	43.15	1.13	52.94	1533
128	1.78	44.96	1.17	53.97	1533
130	1.81	41.99	1.09	52.26	1532
132	1.82	40.94	1.07	51.63	1530
134	1.79	43.70	1.14	53.26	1530
136	1.79	43.97	1.15	53.41	1531
138	1.81	42.47	1.11	52.55	1531
140	1.77	45.97	1.20	54.52	1531
142	1.77	45.76	1.19	54.40	1529
144	1.79	44.18	1.15	53.53	1530
146	1.80	43.43	1.13	53.11	1530
148	1.82	41.17	1.07	51.77	1532
150	1.81	41.97	1.09	52.25	1530
152	1.78	44.66	1.16	53.80	1530
154	1.79	44.58	1.16	53.75	1530
156	1.79	44.26	1.15	53.58	1532
158	1.78	45.15	1.18	54.07	1532
160	1.79	43.59	1.14	53.20	1533
162	1.79	44.54	1.16	53.73	1533
164	1.80	43.36	1.13	53.07	1533
166	1.79	43.78	1.14	53.31	1533
168	1.80	43.10	1.12	52.91	1532
170	1.81	42.19	1.10	52.38	1533
172	1.82	40.76	1.06	51.52	1535
174	1.82	41.21	1.07	51.79	1537
176	1.81	42.14	1.10	52.35	1536
178	1.81	42.27	1.10	52.43	1537
180	1.81	42.34	1.10	52.47	1536
182	1.79	43.89	1.14	53.37	1535

HM 58

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.78	44.61	1.16	53.77	1536
186	1.82	41.29	1.08	51.84	1535
188	1.80	42.51	1.11	52.57	1536
190	1.81	42.15	1.10	52.36	1536
192	1.79	44.11	1.15	53.49	1538
194	1.80	43.07	1.12	52.90	1539
196	1.81	42.28	1.10	52.43	
198	1.74	50.02	1.30	56.60	
200	1.77	46.07	1.20	54.57	
202	1.79	43.87	1.14	53.36	
204	1.74	49.65	1.29	56.42	
206	1.79	44.37	1.16	53.64	
208	1.85	37.99	0.99	49.76	
210	1.83	40.13	1.05	51.13	
212	1.86	37.36	0.97	49.34	1539
214	1.86	36.77	0.96	48.95	1534
216	1.81	41.75	1.09	52.12	1535
218	1.84	39.25	1.02	50.58	1536
220	1.82	40.63	1.06	51.44	1552
222	1.81	41.73	1.09	52.11	1540
224	1.80	43.10	1.12	52.92	1538
226	1.86	37.39	0.97	49.36	1538
228	1.83	39.78	1.04	50.91	1537
230	1.83	40.40	1.05	51.30	1530
232	1.83	40.31	1.05	51.24	1539
234	1.82	40.61	1.06	51.43	1539
236	1.81	41.99	1.09	52.26	1540
238	1.82	41.17	1.07	51.77	1539
240	1.81	41.66	1.09	52.07	1539
242	1.83	40.15	1.05	51.14	1533
244	1.84	39.36	1.03	50.65	1541

HM 58

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.82	41.11	1.07	51.73	1541
248	1.83	40.18	1.05	51.16	1544
250	1.83	39.78	1.04	50.91	1542
252	1.85	38.08	0.99	49.82	1541
254	1.83	39.68	1.03	50.85	1546
256	1.90	33.37	0.87	46.53	1567
258	1.82	41.07	1.07	51.71	1537
260	1.83	40.13	1.05	51.13	
262	1.82	40.54	1.06	51.39	
264	1.84	39.13	1.02	50.50	1551
266	1.84	39.26	1.02	50.58	1557
268	1.80	42.74	1.11	52.70	
270	1.78	44.89	1.17	53.93	1521
272	1.85	37.97	0.99	49.75	1580
274					1526

HM 59

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14					1512
16	1.57	77.86	2.03	67.00	1503
18	1.57	77.54	2.02	66.91	1497
20	1.56	79.50	2.07	67.46	1491
22	1.64	64.17	1.67	62.59	1493
24	1.64	63.79	1.66	62.45	1491
26	1.67	58.82	1.53	60.53	1493
28	1.57	77.44	2.02	66.88	1484
30	1.65	62.35	1.63	61.92	1490
32	1.61	68.86	1.80	64.23	1485
34	1.59	72.30	1.89	65.34	1483
36	1.59	74.03	1.93	65.87	1483
38	1.57	76.90	2.01	66.72	1483
40	1.56	80.46	2.10	67.72	1480
42	1.54	84.07	2.19	68.67	1478
44	1.50	95.55	2.49	71.36	1473
46	1.49	96.94	2.53	71.65	1474
48	1.51	92.02	2.40	70.58	1473
50	1.46	106.65	2.78	73.55	1474
52	1.50	94.46	2.46	71.12	1475
54	1.51	90.52	2.36	70.24	1474
56	1.49	96.09	2.51	71.47	1476
58	1.58	75.76	1.98	66.39	1483

HM 59

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.55	82.28	2.15	68.21	1482
62	1.60	72.20	1.88	65.31	1488
64	1.59	72.70	1.90	65.47	1487
66	1.60	70.55	1.84	64.78	1487
68	1.56	78.58	2.05	67.20	1485
70	1.56	79.55	2.07	67.47	1485
72	1.54	83.85	2.19	68.62	1480
74	1.60	70.99	1.85	64.92	1488
76	1.55	81.29	2.12	67.95	1477
78	1.51	90.27	2.35	70.18	1475
80	1.54	83.86	2.19	68.62	1477
82	1.55	81.91	2.14	68.11	1478
84	1.55	80.69	2.10	67.78	1477
86	1.53	85.35	2.23	69.00	1478
88	1.53	85.95	2.24	69.15	1478
90	1.62	66.97	1.75	63.59	1495
92	1.66	60.18	1.57	61.08	1509
94	1.69	55.73	1.45	59.24	
96					
98					
100					1527
102					
104					
106					
108	1.71	53.05	1.38	58.04	
110	1.77	46.78	1.22	54.95	1521
112	1.84	38.77	1.01	50.27	1534
114	1.84	38.87	1.01	50.33	1539
116	1.83	39.66	1.03	50.84	1540
118	1.86	37.31	0.97	49.31	1540
120	1.87	36.33	0.95	48.65	1541

HM 59

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.93	31.36	0.82	44.99	1532
124	1.85	37.71	0.98	49.58	1544
126	1.91	33.22	0.87	46.41	1535
128	1.85	37.95	0.99	49.74	1546
130	1.85	37.67	0.98	49.55	1543
132	1.88	35.66	0.93	48.18	1543
134	1.85	37.89	0.99	49.70	1541
136	1.83	39.59	1.03	50.79	1544
138	1.84	39.05	1.02	50.45	1544
140	1.85	38.20	1.00	49.90	1545
142	1.84	38.60	1.01	50.16	1545
144	1.86	37.38	0.97	49.36	1544
146	1.84	38.61	1.01	50.16	1546
148	1.88	35.71	0.93	48.22	1545
150	1.87	36.32	0.95	48.64	1545
152	1.87	36.52	0.95	48.77	1546
154	1.86	37.56	0.98	49.48	1546
156	1.86	37.26	0.97	49.28	1547
158	1.87	35.99	0.94	48.41	1549
160	1.87	36.62	0.95	48.84	1550
162	1.86	37.17	0.97	49.22	1549
164	1.88	35.06	0.91	47.76	1548
166	1.86	37.53	0.98	49.46	1550
168	1.89	34.64	0.90	47.46	1548
170	1.85	37.79	0.99	49.63	1549
172	1.88	35.15	0.92	47.82	1550
174	1.87	36.16	0.94	48.53	1548
176	1.90	33.82	0.88	46.86	1547
178	1.87	36.04	0.94	48.44	1551
180	1.88	35.71	0.93	48.21	1554
182	1.85	38.39	1.00	50.02	1552

HM 59

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.87	36.58	0.95	48.82	1551
186	1.88	35.43	0.92	48.02	1552
188	1.98	27.40	0.71	41.67	1545
190	1.88	35.77	0.93	48.26	1554
192	1.88	35.47	0.92	48.05	1557
194	1.85	37.74	0.98	49.60	1558
196	1.82	40.93	1.07	51.63	
198	1.81	41.79	1.09	52.14	1569
200	1.88	35.12	0.92	47.80	
202					
204	1.84	38.58	1.01	50.15	
206	1.81	42.37	1.10	52.49	
208	1.88	35.37	0.92	47.98	
210	1.90	33.73	0.88	46.80	1568
212	1.92	32.14	0.84	45.59	1566
214	1.91	32.57	0.85	45.92	1565
216	1.92	32.44	0.85	45.82	1564
218	1.90	34.03	0.89	47.02	1561
220	1.90	33.62	0.88	46.71	1556
222	1.90	33.37	0.87	46.52	1561
224	1.91	33.28	0.87	46.46	1559
226	1.88	35.23	0.92	47.88	1559
228	1.91	32.96	0.86	46.22	1555
230	1.90	34.12	0.89	47.08	1560
232	1.90	33.46	0.87	46.59	1558
234	1.89	34.44	0.90	47.31	1559
236	1.92	32.07	0.84	45.54	1558
238	1.91	33.19	0.87	46.39	1562
240	1.88	35.18	0.92	47.84	1559
242	1.88	35.23	0.92	47.88	1560
244	1.88	35.20	0.92	47.86	1558

HM 59

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.88	35.26	0.92	47.90	1557
248	1.91	32.86	0.86	46.14	1559
250	1.89	34.76	0.91	47.55	1561
252	1.92	31.80	0.83	45.33	1559
254	1.89	34.48	0.90	47.34	1564
256					1554
258	1.88	35.32	0.92	47.95	1559
260	1.92	32.32	0.84	45.73	1563
262	1.88	35.02	0.91	47.73	1561
264	1.91	33.14	0.86	46.36	1560
266	1.88	35.24	0.92	47.89	1563
268	1.89	34.28	0.89	47.19	1564
270	1.90	33.47	0.87	46.60	1566
272	1.90	33.57	0.88	46.67	1565
274	1.89	34.79	0.91	47.56	1563
276	1.95	29.93	0.78	43.84	1565
278	1.87	36.44	0.95	48.72	1564
280	1.91	32.84	0.86	46.13	1564
282	1.91	33.04	0.86	46.28	1573
284	1.88	35.63	0.93	48.16	
286	1.85	38.38	1.00	50.02	
288	1.90	33.65	0.88	46.74	

HM 60

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6	1.48	99.20	2.59	72.12	
8	1.63	65.54	1.71	63.09	1499
10	1.59	74.07	1.93	65.89	1495
12	1.63	65.32	1.70	63.01	1499
14	1.67	59.31	1.55	60.73	1502
16	1.65	63.25	1.65	62.25	1499
18	1.61	69.52	1.81	64.45	1503
20	1.61	69.48	1.81	64.43	1503
22	1.62	67.73	1.77	63.85	1501
24	1.60	71.37	1.86	65.05	1500
26	1.59	72.21	1.88	65.31	1494
28	1.60	71.77	1.87	65.17	1497
30	1.61	69.57	1.81	64.46	1499
32	1.61	68.84	1.79	64.22	1498
34	1.60	71.75	1.87	65.17	1495
36	1.59	72.21	1.88	65.31	1495
38	1.54	84.00	2.19	68.65	1490
40	1.60	70.92	1.85	64.90	1494
42	1.61	70.15	1.83	64.65	1493
44	1.59	74.02	1.93	65.87	1494
46	1.58	75.59	1.97	66.34	1491
48	1.60	70.49	1.84	64.77	1496
50	1.60	70.60	1.84	64.80	1497
52	1.61	69.25	1.81	64.36	1502
54	1.61	70.22	1.83	64.68	1501
56	1.63	65.34	1.70	63.01	1500
58	1.60	70.62	1.84	64.81	1497

HM 60

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.62	67.98	1.77	63.93	1498
62	1.59	73.29	1.91	65.65	1496
64	1.58	75.48	1.97	66.31	1496
66	1.60	70.42	1.84	64.74	1495
68	1.61	69.75	1.82	64.52	1496
70	1.62	67.02	1.75	63.60	1495
72	1.62	67.18	1.75	63.66	1495
74	1.64	64.73	1.69	62.80	1497
76	1.64	63.98	1.67	62.52	1498
78	1.65	62.31	1.62	61.90	1498
80	1.65	62.28	1.62	61.89	1497
82	1.61	68.64	1.79	64.15	1495
84	1.60	70.37	1.83	64.72	1496
86	1.62	67.97	1.77	63.93	1494
88	1.58	74.36	1.94	65.97	1491
90	1.59	73.07	1.91	65.58	1491
92	1.62	68.40	1.78	64.07	1493
94	1.56	80.20	2.09	67.65	
96	1.58	74.27	1.94	65.95	
98	1.66	61.04	1.59	61.41	
100					
102					
104	1.58	75.71	1.97	66.38	
106	1.53	85.48	2.23	69.03	
108	1.60	71.27	1.86	65.02	1495
110	1.64	64.84	1.69	62.83	1499
112	1.62	68.07	1.77	63.96	1495
114	1.60	71.22	1.86	65.00	1491
116	1.58	75.97	1.98	66.45	1490
118	1.60	71.86	1.87	65.20	1493
120	1.60	70.40	1.84	64.73	1496

HM 60

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.61	68.69	1.79	64.17	1498
124	1.65	62.84	1.64	62.10	1501
126	1.69	56.39	1.47	59.52	1506
128	1.78	45.37	1.18	54.19	1510
130	1.72	52.27	1.36	57.68	1511
132	1.70	54.47	1.42	58.68	1506
134	1.69	56.85	1.48	59.72	1502
136	1.71	53.91	1.41	58.43	1503
138	1.71	53.48	1.39	58.23	1503
140	1.68	57.85	1.51	60.14	1499
142	1.67	58.76	1.53	60.51	1497
144	1.63	65.05	1.70	62.91	1491
146	1.63	66.22	1.73	63.32	1490
148	1.64	63.34	1.65	62.29	1491
150	1.65	62.46	1.63	61.96	1491
152	1.64	63.54	1.66	62.36	1489
154	1.62	67.35	1.76	63.72	1488
156	1.62	67.02	1.75	63.60	1486
158	1.62	67.10	1.75	63.63	1486
160	1.61	69.00	1.80	64.27	1484
162	1.60	71.19	1.86	64.99	1484
164	1.58	74.42	1.94	65.99	1483
166	1.60	72.02	1.88	65.25	1483
168	1.61	68.71	1.79	64.18	1485
170	1.62	66.72	1.74	63.50	1485
172	1.61	69.55	1.81	64.46	1482
174	1.58	74.40	1.94	65.99	1483
176	1.60	71.26	1.86	65.01	1483
178	1.63	66.67	1.74	63.48	1483
180	1.62	67.01	1.75	63.60	1490
182	1.68	57.79	1.51	60.11	1508

HM 60

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.73	51.21	1.34	57.18	1514
186	1.70	55.71	1.45	59.23	1515
188	1.74	49.97	1.30	56.58	1522
190	1.83	40.41	1.05	51.31	1542
192	1.83	40.13	1.05	51.13	1540
194	1.85	38.22	1.00	49.91	1542
196	1.77	45.89	1.20	54.48	
198	1.82	41.31	1.08	51.86	1528
200	1.87	36.11	0.94	48.50	1536
202	1.79	43.55	1.14	53.18	
204	1.79	43.96	1.15	53.41	
206	1.77	46.67	1.22	54.89	
208	1.86	37.59	0.98	49.50	
210	1.85	38.13	0.99	49.86	
212	1.87	36.12	0.94	48.50	
214	1.88	35.04	0.91	47.74	1553
216	1.85	38.21	1.00	49.91	1552
218	1.86	37.53	0.98	49.46	1550
220	1.86	36.84	0.96	48.99	1549
222	1.85	37.62	0.98	49.52	1547
224	1.86	37.19	0.97	49.23	1548
226	1.86	37.19	0.97	49.23	1548
228	1.86	37.59	0.98	49.50	1550
230	1.86	36.79	0.96	48.96	1550
232	1.85	37.74	0.98	49.60	1550
234	1.87	36.58	0.95	48.82	1548
236	1.86	37.44	0.98	49.40	1551
238	1.86	37.03	0.97	49.12	1549
240	1.87	36.30	0.95	48.63	1550
242	1.91	33.26	0.87	46.44	1553
244	1.88	34.97	0.91	47.69	1550

HM 60

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.87	35.83	0.93	48.30	1554
248	1.86	36.74	0.96	48.93	1552
250	1.84	38.82	1.01	50.30	1552
252	1.85	37.62	0.98	49.52	1553
254	1.86	36.96	0.96	49.08	1553
256	1.86	37.12	0.97	49.18	1550
258	1.86	37.31	0.97	49.31	1550
260	1.85	37.76	0.98	49.61	1549
262	1.86	37.15	0.97	49.21	1549
264	1.85	37.86	0.99	49.68	1548
266	1.86	36.76	0.96	48.94	1550
268	1.83	39.94	1.04	51.02	1550
270	1.86	37.08	0.97	49.16	1547
272	1.87	36.26	0.95	48.60	1551
274	1.87	36.59	0.95	48.82	1551
276	1.85	37.63	0.98	49.52	1552
278	1.87	36.35	0.95	48.66	1549
280	1.87	36.52	0.95	48.78	1548
282	1.88	35.65	0.93	48.17	1549
284	1.86	37.38	0.97	49.36	1548
286	1.86	36.87	0.96	49.02	1552
288	1.86	37.06	0.97	49.14	1555
290	1.89	34.51	0.90	47.36	1554
292	1.78	44.74	1.17	53.85	
294	1.83	39.52	1.03	50.75	
296	1.88	35.69	0.93	48.20	

HM 63

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8	1.74	49.99	1.30	56.59	1535
10	1.74	50.19	1.31	56.69	1520
12	1.72	52.09	1.36	57.60	1510
14	1.69	56.78	1.48	59.69	1505
16	1.68	57.28	1.49	59.89	1501
18	1.67	59.99	1.56	61.00	1498
20	1.65	62.81	1.64	62.09	1496
22	1.63	65.10	1.70	62.93	1495
24	1.58	75.01	1.96	66.17	1495
26	1.59	73.77	1.92	65.80	1493
28	1.61	70.04	1.83	64.62	1495
30	1.61	68.99	1.80	64.27	1499
32	1.61	68.56	1.79	64.13	1498
34	1.61	70.14	1.83	64.65	1496
36	1.61	69.42	1.81	64.41	1495
38	1.61	69.14	1.80	64.32	1492
40	1.61	69.68	1.82	64.50	1492
42	1.60	70.96	1.85	64.91	1490
44	1.58	75.36	1.97	66.27	1490
46	1.57	76.80	2.00	66.70	1488
48	1.57	78.31	2.04	67.13	1487
50	1.56	78.58	2.05	67.20	1488
52	1.58	74.64	1.95	66.06	1488
54	1.58	75.30	1.96	66.26	1489
56	1.62	67.36	1.76	63.72	1497
58	1.60	71.86	1.87	65.20	1493
60	1.61	69.38	1.81	64.40	1492

HM 63

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
62	1.59	72.90	1.90	65.53	1490
64	1.60	70.94	1.85	64.91	1491
66	1.61	69.06	1.80	64.29	1493
68	1.60	71.86	1.87	65.20	1496
70	1.60	71.19	1.86	64.99	1491
72	1.60	71.03	1.85	64.94	1494
74	1.63	65.76	1.71	63.16	1497
76	1.67	59.16	1.54	60.67	1505
78	1.70	55.28	1.44	59.04	1509
80	1.75	48.80	1.27	55.99	1519
82	1.71	53.40	1.39	58.20	1511
84	1.70	55.27	1.44	59.03	1507
86	1.71	53.76	1.40	58.36	1502
88	1.68	58.32	1.52	60.33	1496
90	1.65	62.92	1.64	62.13	1492
92	1.66	60.89	1.59	61.35	1493
94	1.59	72.50	1.89	65.40	
96	1.58	75.75	1.98	66.39	
98					1509
100					1507
102					
104					
106	1.51	92.56	2.41	70.70	
108	1.56	79.02	2.06	67.32	1487
110	1.57	76.50	1.99	66.61	1485
112	1.58	75.60	1.97	66.34	1484
114	1.57	77.38	2.02	66.86	1484
116	1.56	79.69	2.08	67.51	1483
118	1.59	72.36	1.89	65.36	1486
120	1.66	60.34	1.57	61.14	1501
122	1.79	43.96	1.15	53.41	1537
124	1.79	44.54	1.16	53.74	1547

HM 63

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
126	1.78	45.26	1.18	54.13	1553
128	1.77	45.82	1.19	54.44	1551
130	1.75	48.63	1.27	55.91	1546
132	1.85	37.75	0.98	49.61	1564
134	1.78	44.63	1.16	53.78	1550
136	1.87	36.25	0.95	48.59	1568
138	1.83	39.78	1.04	50.91	1561
140	1.82	40.59	1.06	51.42	1553
142	1.89	34.77	0.91	47.55	1571
144	1.94	30.62	0.80	44.40	1580
146	1.94	30.33	0.79	44.16	1583
148	1.90	33.66	0.88	46.74	1578
150	1.93	31.03	0.81	44.72	1579
152	1.93	31.56	0.82	45.14	1582
154	1.89	34.43	0.90	47.30	1578
156	1.64	64.03	1.67	62.54	1505
158	1.73	51.25	1.34	57.20	1520
160	1.84	38.96	1.02	50.39	1546
162	1.83	39.62	1.03	50.81	1540
164	1.80	42.54	1.11	52.59	1542
166	1.93	31.14	0.81	44.81	1571
168	1.99	26.72	0.70	41.06	1601
170	1.96	29.39	0.77	43.39	1593
172	1.95	30.00	0.78	43.89	1585
174	1.96	28.82	0.75	42.90	1597
176	1.98	27.72	0.72	41.95	1586
178	1.98	27.55	0.72	41.80	1590
180	1.99	27.26	0.71	41.55	1596
182	1.99	27.25	0.71	41.54	1592
184	1.99	27.20	0.71	41.49	1599
186	1.99	27.29	0.71	41.58	1602
188	1.98	27.80	0.72	42.03	1592

HM 63

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
190	1.98	27.42	0.71	41.69	1598
192	1.93	31.52	0.82	45.11	1582
194	1.85	38.43	1.00	50.05	
196	1.82	40.82	1.06	51.56	
198	1.91	32.85	0.86	46.13	
200					
202					
204	1.87	36.66	0.96	48.87	
206	1.83	39.60	1.03	50.80	
208	1.92	32.03	0.84	45.51	1559
210	1.89	34.36	0.90	47.25	1568
212	1.95	29.98	0.78	43.87	1563
214	1.92	32.05	0.84	45.52	1563
216	1.90	33.31	0.87	46.48	1563
218	1.92	31.96	0.83	45.45	1560
220	1.89	34.87	0.91	47.62	1561
222	1.93	31.44	0.82	45.05	1562
224	1.93	31.15	0.81	44.82	1560
226	1.91	32.64	0.85	45.97	1562
228	1.95	30.05	0.78	43.93	1565
230	1.91	33.17	0.86	46.37	1568
232	1.89	34.83	0.91	47.59	1567
234	1.90	33.81	0.88	46.85	1561
236	1.89	34.23	0.89	47.16	1563
238	1.91	32.69	0.85	46.01	1563
240	1.91	32.92	0.86	46.19	1567
242	1.91	33.28	0.87	46.46	1570
244	1.94	30.71	0.80	44.47	1569
246	1.93	31.27	0.82	44.92	1574
248	1.79	43.63	1.14	53.22	
250	1.83	39.62	1.03	50.81	1536
252	1.89	34.88	0.91	47.63	1579

HM 64

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2	1.84	39.23	1.02	50.57	
4	1.83	39.95	1.04	51.02	
6	1.83	40.02	1.04	51.06	
8	1.91	33.01	0.86	46.26	1568
10	1.89	34.52	0.90	47.37	1550
12	1.89	34.39	0.90	47.28	1563
14	1.92	31.85	0.83	45.37	1574
16	1.98	28.01	0.73	42.20	1550
18	1.89	34.30	0.89	47.21	1568
20	1.95	30.12	0.79	43.99	1595
22	1.86	36.72	0.96	48.91	1552
24	1.84	39.38	1.03	50.66	1550
26	1.85	38.33	1.00	49.99	1552
28	1.93	31.38	0.82	45.00	1571
30	1.91	32.53	0.85	45.90	1565
32	1.80	42.54	1.11	52.59	1535
34	1.76	46.96	1.22	55.04	1519
36	1.70	55.23	1.44	59.02	
38	1.76	47.75	1.25	55.46	1546
40	1.79	44.27	1.15	53.58	1553
42					
44	1.68	57.70	1.50	60.07	
46	1.72	52.77	1.38	57.91	
48	1.76	48.00	1.25	55.59	
50	1.67	59.86	1.56	60.95	1489
52	1.66	60.28	1.57	61.12	1498
54	1.69	57.11	1.49	59.82	1497
56	1.69	57.04	1.49	59.79	1498
58	1.68	57.32	1.49	59.91	1496

HM 64

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.71	54.31	1.42	58.61	1498
62	1.68	57.72	1.50	60.08	1497
64	1.71	53.26	1.39	58.14	1506
66	1.69	55.79	1.45	59.26	1499
68	1.69	56.57	1.48	59.60	1500
70	1.72	52.41	1.37	57.74	1504
72	1.71	53.79	1.40	58.38	1504
74	1.76	47.51	1.24	55.33	1520
76	1.83	40.08	1.05	51.10	1540
78	1.86	37.43	0.98	49.39	1548
80	1.86	36.97	0.96	49.08	1547
82	1.91	32.56	0.85	45.92	1566
84	1.89	34.83	0.91	47.59	1562
86	1.89	34.28	0.89	47.19	1565
88	1.95	29.71	0.77	43.65	1579
90	1.86	36.93	0.96	49.06	1573
92	1.85	38.25	1.00	49.94	1547
94	1.92	32.23	0.84	45.67	1568
96	1.91	32.55	0.85	45.91	1566
98	1.95	29.65	0.77	43.60	1575
100	1.90	33.32	0.87	46.49	1571
102	1.95	29.90	0.78	43.81	1590
104	1.89	34.36	0.90	47.26	1584
106	1.89	34.57	0.90	47.41	1567
108	1.93	31.61	0.82	45.18	1587
110	1.95	29.64	0.77	43.59	1584
112	1.94	30.49	0.79	44.29	1594
114	1.94	30.52	0.80	44.31	1588
116	1.94	30.65	0.80	44.42	1593
118	1.96	28.84	0.75	42.92	1585
120	1.95	29.55	0.77	43.52	1582

HM 64

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.95	29.72	0.77	43.66	1586
124	1.95	29.94	0.78	43.84	1590
126	1.95	29.96	0.78	43.86	1586
128	1.96	29.21	0.76	43.23	1587
130	1.96	29.16	0.76	43.20	1595
132	2.00	26.01	0.68	40.41	1581
134	1.88	35.20	0.92	47.86	
136	1.86	37.18	0.97	49.22	
138	1.90	33.87	0.88	46.90	

Hm 65

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14	1.96	28.78	0.75	42.87	1539
16	1.98	27.94	0.73	42.15	1614
18	1.95	29.53	0.77	43.50	1595
20	1.97	28.71	0.75	42.81	1602
22	1.97	28.59	0.75	42.71	1580
24	1.89	34.18	0.89	47.13	1588
26	1.79	44.26	1.15	53.58	1572
28	1.90	34.06	0.89	47.03	1556
30	1.86	36.90	0.96	49.03	1564
32	1.90	33.52	0.87	46.64	1573
34	1.88	35.59	0.93	48.13	1571
36	1.89	34.74	0.91	47.53	1573
38	1.91	33.17	0.87	46.38	1575
40	1.91	32.81	0.86	46.10	1571
42	1.91	32.59	0.85	45.94	1577
44	1.92	32.28	0.84	45.70	1573
46	1.91	32.56	0.85	45.92	1575
48	1.92	32.30	0.84	45.72	1575
50	1.92	32.13	0.84	45.59	1580
52	1.94	30.47	0.79	44.27	1583
54	1.94	30.76	0.80	44.50	1583
56	1.91	33.09	0.86	46.31	1577
58	1.90	34.07	0.89	47.05	1566

Hm 65

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.91	32.76	0.85	46.07	1566
62	1.93	31.62	0.82	45.19	1576
64	1.94	30.78	0.80	44.52	1576
66	1.89	34.31	0.89	47.22	1570
68	1.78	45.15	1.18	54.07	1532
70	1.95	29.85	0.78	43.76	1588
72	1.88	35.04	0.91	47.74	1562
74	1.78	45.21	1.18	54.10	1529
76	1.94	30.48	0.79	44.28	1589
78	1.87	36.53	0.95	48.79	1558
80	1.82	41.26	1.08	51.83	1544
82	1.86	37.38	0.97	49.36	1541
84	1.87	36.12	0.94	48.50	1557
86	1.96	29.26	0.76	43.28	1587
88	1.93	31.11	0.81	44.79	1582
90	1.94	30.36	0.79	44.19	1586
92	1.96	29.34	0.77	43.35	1587
94	1.87	36.06	0.94	48.46	
96	1.91	33.11	0.86	46.33	1513
98	1.94	30.44	0.79	44.25	1537
100					
102	1.94	30.47	0.79	44.27	
104	1.89	34.48	0.90	47.34	
106	1.85	37.83	0.99	49.66	
108	1.94	30.44	0.79	44.25	1536
110	1.98	27.79	0.72	42.02	1529
112	1.94	30.52	0.80	44.31	1584
114	1.98	27.98	0.73	42.19	1592
116	1.98	27.78	0.72	42.01	1597
118	1.97	28.30	0.74	42.46	1587
120	1.97	28.61	0.75	42.72	1587

Hm 65

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.98	27.36	0.71	41.64	1596
124	1.96	28.94	0.75	43.01	1594
126	1.98	27.38	0.71	41.66	1599
128	2.00	26.65	0.69	41.00	1602
130	1.86	37.48	0.98	49.43	1586
132	1.92	32.04	0.84	45.51	
134	1.94	30.43	0.79	44.24	1579
136	1.89	34.41	0.90	47.29	1559
138	1.95	29.56	0.77	43.53	1591
140	1.97	28.08	0.73	42.27	1593
142	1.96	29.01	0.76	43.07	1593
144	1.95	29.80	0.78	43.73	1594
146	1.99	27.16	0.71	41.46	1598
148	2.00	26.37	0.69	40.74	1604
150	1.82	41.21	1.07	51.80	1604
152	1.92	31.75	0.83	45.29	1536
154	2.01	25.42	0.66	39.86	1608
156	1.86	37.57	0.98	49.49	1545
158	1.91	33.04	0.86	46.28	1574
160	1.93	31.66	0.83	45.22	1570
162	1.97	28.38	0.74	42.53	
164	1.96	29.41	0.77	43.40	1583
166	1.95	30.17	0.79	44.03	1586
168	1.95	29.78	0.78	43.71	1587
170	1.97	28.56	0.74	42.68	1588
172	1.94	30.75	0.80	44.50	1588
174	1.96	29.07	0.76	43.12	1592
176	1.99	26.79	0.70	41.12	1592
178	1.96	28.89	0.75	42.96	1591
180	1.98	27.46	0.72	41.72	1595
182	1.97	28.33	0.74	42.49	1596

Hm 65

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.97	28.17	0.73	42.34	1593
186	1.97	28.03	0.73	42.23	1592
188	1.89	34.38	0.90	47.27	1590
190	1.94	30.90	0.81	44.62	
192	1.87	36.58	0.95	48.82	
194	1.98	27.47	0.72	41.73	
196	1.89	34.35	0.90	47.25	

Hm 68

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14					
16					
18	1.54	84.45	2.20	68.77	
20	1.58	74.50	1.94	66.02	
22	1.62	67.28	1.75	63.69	
24	1.71	54.08	1.41	58.51	
26	1.66	60.96	1.59	61.38	
28	1.69	56.45	1.47	59.54	
30	1.69	56.35	1.47	59.50	
32	1.69	56.76	1.48	59.68	
34	1.64	63.51	1.66	62.35	1511
36	1.65	63.28	1.65	62.26	1509
38	1.66	61.17	1.59	61.46	1507
40	1.64	64.51	1.68	62.72	1508
42	1.65	62.52	1.63	61.98	1505
44	1.64	64.41	1.68	62.68	1506
46	1.61	69.87	1.82	64.56	1500
48	1.56	78.61	2.05	67.21	1499
50	1.57	77.88	2.03	67.00	1498
52	1.59	72.61	1.89	65.44	1497
54	1.58	75.17	1.96	66.22	1499
56	1.56	78.83	2.06	67.27	1494
58	1.55	82.26	2.14	68.20	1496

Hm 68

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.57	77.93	2.03	67.02	1497
62	1.54	84.85	2.21	68.87	1492
64	1.52	89.04	2.32	69.90	1492
66	1.52	88.65	2.31	69.80	1494
68	1.54	84.01	2.19	68.66	1494
70	1.53	86.33	2.25	69.24	1494
72	1.52	88.78	2.31	69.83	1492
74	1.53	85.27	2.22	68.98	1491
76	1.57	77.96	2.03	67.03	1493
78	1.55	82.69	2.16	68.31	1493
80	1.54	83.50	2.18	68.52	1492
82	1.57	77.38	2.02	66.86	1494
84	1.56	78.82	2.06	67.27	1494
86	1.56	78.60	2.05	67.21	1493
88	1.57	77.57	2.02	66.92	1495
90	1.54	85.16	2.22	68.95	1494
92	1.57	77.83	2.03	66.99	1493
94	1.57	76.43	1.99	66.59	1497
96	1.53	86.17	2.25	69.20	
98	1.60	71.38	1.86	65.05	1518
100	1.58	74.80	1.95	66.10	1527
102					
104					
106					
108	1.59	73.61	1.92	65.74	
110	1.58	74.84	1.95	66.12	1504
112	1.56	78.64	2.05	67.22	1495
114	1.56	80.45	2.10	67.72	1494
116	1.56	79.16	2.06	67.36	1492
118	1.56	78.46	2.05	67.17	1494
120	1.56	80.28	2.09	67.67	1493

Hm 68

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.55	82.71	2.16	68.32	1490
124	1.55	82.24	2.14	68.20	1489
126	1.55	80.96	2.11	67.86	1493
128	1.57	78.01	2.03	67.04	1491
130	1.56	79.93	2.08	67.58	1495
132	1.55	80.93	2.11	67.85	1495
134	1.57	78.21	2.04	67.10	1498
136	1.58	75.23	1.96	66.23	1497
138	1.62	68.30	1.78	64.04	1499
140	1.58	74.49	1.94	66.01	1500
142	1.65	62.83	1.64	62.10	1509
144	1.64	64.08	1.67	62.56	1507
146	1.61	69.57	1.81	64.46	1502
148	1.60	72.05	1.88	65.26	1499
150	1.59	73.10	1.91	65.59	1496
152	1.58	75.72	1.97	66.38	1495
154	1.60	71.04	1.85	64.94	1498
156	1.62	68.35	1.78	64.06	1500
158	1.62	68.17	1.78	63.99	1500
160	1.61	69.33	1.81	64.38	1501
162	1.62	67.29	1.75	63.70	1503
164	1.64	63.85	1.66	62.48	1503
166	1.67	58.85	1.53	60.55	1509
168	1.66	60.97	1.59	61.38	1506
170	1.66	60.69	1.58	61.28	1512
172	1.60	70.72	1.84	64.84	1501
174	1.61	68.91	1.80	64.25	1502
176	1.60	71.48	1.86	65.08	1496
178	1.61	69.69	1.82	64.50	1500
180	1.61	69.59	1.81	64.47	1498
182	1.57	78.12	2.04	67.07	1492

Hm 68

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.59	72.90	1.90	65.53	1493
186	1.60	70.96	1.85	64.91	1494
188	1.57	76.67	2.00	66.66	1491
190	1.57	78.11	2.04	67.07	1491
192	1.59	72.38	1.89	65.37	1492
194	1.62	68.11	1.78	63.98	1496
196	1.59	74.11	1.93	65.90	
198	1.65	62.87	1.64	62.11	
200	1.69	56.47	1.47	59.55	
202					
204					
206					
208	1.64	64.10	1.67	62.56	
210	1.68	57.62	1.50	60.04	
212	1.66	61.24	1.60	61.49	
214	1.65	62.62	1.63	62.02	
216	1.66	60.81	1.59	61.32	
218	1.65	61.94	1.61	61.76	
220	1.66	61.28	1.60	61.51	
222	1.71	54.16	1.41	58.54	
224	1.76	47.82	1.25	55.49	
226	1.71	53.35	1.39	58.18	
228	1.72	52.52	1.37	57.79	
230	1.70	55.39	1.44	59.09	
232	1.71	54.26	1.41	58.59	
234	1.72	52.36	1.37	57.72	
236	1.70	54.58	1.42	58.73	
238	1.71	54.31	1.42	58.61	1502
240	1.75	48.59	1.27	55.89	
242	1.68	57.58	1.50	60.02	1495
244	1.66	60.20	1.57	61.09	1496

Hm 68

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.66	60.48	1.58	61.20	1495
248	1.65	62.02	1.62	61.79	1493
250	1.67	58.98	1.54	60.60	1496
252	1.67	58.67	1.53	60.47	1498
254	1.72	52.48	1.37	57.78	1507
256	1.71	53.05	1.38	58.04	1507
258	1.70	54.58	1.42	58.73	1504
260	1.67	59.80	1.56	60.93	1500
262	1.67	59.63	1.55	60.86	1499
264	1.69	56.25	1.47	59.46	1500
266	1.68	58.47	1.52	60.39	1502
268	1.64	63.37	1.65	62.30	1497
270	1.64	64.57	1.68	62.74	1494
272	1.63	65.32	1.70	63.00	1497
274	1.72	52.53	1.37	57.80	
276	1.66	61.16	1.59	61.46	1498
278	1.67	59.32	1.55	60.73	1501
280	1.65	61.71	1.61	61.67	1502
282	1.66	60.76	1.58	61.30	1501
284	1.68	57.95	1.51	60.17	1504
286	1.68	58.20	1.52	60.28	1506

Hm 69

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6	1.60	71.96	1.88	65.23	
8	1.65	62.16	1.62	61.84	1519
10	1.57	77.36	2.02	66.85	1508
12	1.56	78.93	2.06	67.30	1504
14	1.55	81.37	2.12	67.97	1503
16	1.57	76.75	2.00	66.68	1506
18	1.55	81.30	2.12	67.95	1501
20	1.57	77.87	2.03	67.00	1504
22	1.58	75.79	1.98	66.40	1502
24	1.54	82.86	2.16	68.36	1497
26	1.55	80.75	2.11	67.80	1499
28	1.52	87.81	2.29	69.60	1497
30	1.52	88.46	2.31	69.76	1497
32	1.53	86.91	2.27	69.38	1497
34	1.55	81.18	2.12	67.91	1497
36	1.55	81.85	2.13	68.09	1498
38	1.55	81.71	2.13	68.06	1496
40	1.56	79.48	2.07	67.45	1495
42	1.56	79.76	2.08	67.53	1496
44	1.57	76.27	1.99	66.54	1498
46	1.56	80.46	2.10	67.72	1496
48	1.57	77.27	2.01	66.83	1497
50	1.57	78.03	2.03	67.05	1498
52	1.57	77.47	2.02	66.89	1498
54	1.58	75.52	1.97	66.32	1496
56	1.59	73.22	1.91	65.63	1497
58	1.56	78.47	2.05	67.17	1496

Hm 69

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.58	75.67	1.97	66.36	1496
62	1.56	80.14	2.09	67.63	1492
64	1.58	74.18	1.93	65.92	1495
66	1.54	84.83	2.21	68.87	1492
68	1.52	89.01	2.32	69.89	1491
70	1.56	80.21	2.09	67.65	1492
72	1.54	82.82	2.16	68.35	1490
74	1.54	84.71	2.21	68.83	1489
76	1.53	87.58	2.28	69.54	1490
78	1.57	77.34	2.02	66.85	1492
80	1.54	84.96	2.22	68.90	1493
82	1.53	86.86	2.26	69.37	1493
84	1.59	72.99	1.90	65.55	1499
86	1.60	71.00	1.85	64.93	1499
88	1.62	67.62	1.76	63.81	1501
90	1.65	61.71	1.61	61.67	1509
92	1.65	62.45	1.63	61.95	1513
94	1.61	70.07	1.83	64.63	
96	1.63	65.31	1.70	63.00	1536
98	1.65	62.21	1.62	61.86	1528
100					
102					
104					
106					
108	1.64	64.51	1.68	62.71	
110	1.67	59.79	1.56	60.92	
112	1.71	53.23	1.39	58.12	
114	1.74	50.31	1.31	56.74	1529
116	1.71	53.90	1.41	58.43	1526
118	1.69	56.66	1.48	59.63	1524
120	1.67	58.96	1.54	60.59	1520

Hm 69

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.64	63.84	1.66	62.47	1504
124	1.63	66.32	1.73	63.36	1501
126	1.62	67.89	1.77	63.90	1497
128	1.61	69.47	1.81	64.43	1494
130	1.63	65.92	1.72	63.22	1494
132	1.60	71.78	1.87	65.18	1490
134	1.60	70.81	1.85	64.87	1492
136	1.59	72.42	1.89	65.38	1493
138	1.60	70.36	1.83	64.72	1495
140	1.63	66.60	1.74	63.46	1497
142	1.64	64.38	1.68	62.67	1496
144	1.66	61.46	1.60	61.58	1497
146	1.70	55.06	1.44	58.95	1509
148	1.75	49.04	1.28	56.11	1514
150	1.69	56.11	1.46	59.40	1513
152	1.67	58.90	1.54	60.56	1508
154	1.66	61.66	1.61	61.65	1502
156	1.68	58.57	1.53	60.43	1507
158	1.72	52.50	1.37	57.79	1516
160	1.70	55.27	1.44	59.03	1512
162	1.70	55.33	1.44	59.06	1507
164	1.70	55.37	1.44	59.08	1507
166	1.66	60.26	1.57	61.11	1500
168	1.67	59.00	1.54	60.60	1501
170	1.67	59.43	1.55	60.78	1504
172	1.69	56.46	1.47	59.55	1505
174	1.71	54.28	1.42	58.60	1506
176	1.66	60.72	1.58	61.29	1499
178	1.67	59.72	1.56	60.89	1499
180	1.65	62.75	1.64	62.07	1498
182	1.66	60.27	1.57	61.11	1498

Hm 69

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.66	61.14	1.59	61.45	1502
186	1.68	57.78	1.51	60.11	1508
188	1.70	54.86	1.43	58.85	1509
190	1.69	55.87	1.46	59.30	1510
192	1.70	54.86	1.43	58.86	1508
194	1.70	55.44	1.45	59.11	1510
196	1.61	68.67	1.79	64.16	1511
198	1.66	61.45	1.60	61.57	1522
200	1.62	67.76	1.77	63.86	
202					
204					
206					
208	1.62	66.82	1.74	63.53	
210	1.63	66.60	1.74	63.46	
212	1.61	69.43	1.81	64.42	
214	1.65	62.53	1.63	61.98	
216	1.65	62.36	1.63	61.92	
218	1.65	62.77	1.64	62.07	
220	1.64	64.02	1.67	62.54	
222	1.66	61.62	1.61	61.64	
224	1.65	61.89	1.61	61.74	
226	1.65	62.63	1.63	62.02	
228	1.73	51.50	1.34	57.32	
230	1.69	55.99	1.46	59.35	
232	1.73	50.53	1.32	56.85	
234	1.72	52.21	1.36	57.65	
236	1.71	53.70	1.40	58.34	
238	1.72	52.90	1.38	57.97	1520
240	1.74	50.35	1.31	56.76	1517
242	1.73	51.52	1.34	57.32	1518
244	1.75	49.02	1.28	56.10	1521

Hm 69

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.72	52.06	1.36	57.58	1520
248	1.75	48.10	1.25	55.64	1513
250	1.69	56.73	1.48	59.67	1508
252	1.71	53.19	1.39	58.10	1509
254	1.72	52.83	1.38	57.94	1513
256	1.73	51.23	1.34	57.19	1515
258	1.74	50.43	1.31	56.80	1510
260	1.75	48.86	1.27	56.02	1510
262	1.74	50.04	1.30	56.61	1510
264	1.73	51.40	1.34	57.27	1510
266	1.73	50.78	1.32	56.97	1509
268	1.73	51.56	1.34	57.34	1504
270	1.72	52.98	1.38	58.01	1504
272	1.73	50.73	1.32	56.95	1511
274	1.70	55.50	1.45	59.14	1501
276	1.69	56.06	1.46	59.38	1502
278	1.70	55.09	1.44	58.96	1504
280	1.68	57.77	1.51	60.10	1503
282	1.67	58.79	1.53	60.52	1500
284	1.71	53.86	1.40	58.41	1504
286	1.71	53.97	1.41	58.46	1509
288	1.72	52.25	1.36	57.67	1509
290	1.72	52.42	1.37	57.75	1508
292	1.72	51.79	1.35	57.45	1511
294	1.67	59.25	1.54	60.70	
296	1.58	75.43	1.97	66.29	
298	1.65	61.87	1.61	61.73	

HM 72

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					1486
12	1.70	54.92	1.43	58.88	1496
14	1.58	74.77	1.95	66.10	1498
16	1.70	54.69	1.43	58.78	1516
18	1.69	56.67	1.48	59.64	1478
20	1.72	52.03	1.36	57.56	1480
22	1.71	53.18	1.39	58.10	1491
24	1.69	55.81	1.46	59.27	1477
26	1.75	48.10	1.25	55.64	1532
28	1.74	49.42	1.29	56.31	1529
30	1.73	51.15	1.33	57.15	1522
32	1.72	51.99	1.36	57.55	
34	1.75	48.86	1.27	56.03	1479
36	1.80	42.51	1.11	52.57	1537
38					
40					
42					
44					
46					
48					
50					1499
52	1.69	57.04	1.49	59.79	1503
54	1.69	57.10	1.49	59.82	1509
56	1.66	61.59	1.61	61.62	1518
58	1.72	51.84	1.35	57.48	1516

HM 72

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.69	56.93	1.48	59.75	1521
62	1.69	56.76	1.48	59.68	1514
64	1.74	50.30	1.31	56.74	1519
66	1.70	55.21	1.44	59.01	1473
68	1.70	54.52	1.42	58.70	1482
70	1.67	58.93	1.54	60.58	1488
72	1.61	69.64	1.82	64.49	1486
74	1.53	85.37	2.23	69.00	1478
76	1.70	55.02	1.43	58.92	1485
78	1.60	70.80	1.85	64.86	1447
80	1.65	63.17	1.65	62.22	1444
82	1.59	73.88	1.93	65.83	1455
84	1.66	60.76	1.58	61.30	
86	1.70	55.13	1.44	58.97	
88	1.61	69.35	1.81	64.39	
90	1.60	70.82	1.85	64.87	
92	1.63	66.37	1.73	63.38	
94	1.58	75.33	1.96	66.26	
96	1.57	76.65	2.00	66.65	
98	1.65	62.05	1.62	61.80	
100	1.59	72.65	1.89	65.45	
102	1.68	57.51	1.50	59.99	
104	1.63	65.03	1.70	62.90	
106	1.60	70.95	1.85	64.91	
108	1.67	59.98	1.56	61.00	1441
110	1.85	37.76	0.98	49.61	

HM 73

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12	1.65	62.84	1.64	62.10	
14	1.75	48.20	1.26	55.69	1573
16	1.77	46.27	1.21	54.68	1590
18	1.69	56.90	1.48	59.73	1500
20	1.70	55.09	1.44	58.96	1502
22	1.69	57.02	1.49	59.79	1501
24	1.72	52.75	1.38	57.90	1502
26	1.78	44.65	1.16	53.80	1572
28	1.76	47.08	1.23	55.11	1577
30	1.88	35.04	0.91	47.74	1525
32	1.81	41.68	1.09	52.08	1522
34	1.76	46.87	1.22	55.00	1514
36	1.76	47.67	1.24	55.42	1513
38	1.78	45.14	1.18	54.07	1525
40	1.74	49.48	1.29	56.34	1522
42	1.80	42.92	1.12	52.81	1534
44	1.85	37.84	0.99	49.67	1542
46	1.87	36.10	0.94	48.49	1556
48	1.89	34.29	0.89	47.21	1557
50	1.92	32.28	0.84	45.70	1567
52	1.94	30.71	0.80	44.47	1571
54	1.93	31.55	0.82	45.13	1569
56	1.96	29.40	0.77	43.40	1572
58	1.98	27.44	0.72	41.71	1579

HM 73

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.86	36.80	0.96	48.97	
62	1.93	31.65	0.83	45.21	1614
64	1.90	33.38	0.87	46.53	1621

HM 74

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6	1.52	88.55	2.31	69.78	
8	1.76	46.89	1.22	55.01	1520
10	1.74	49.45	1.29	56.32	1518
12	1.75	48.57	1.27	55.88	1515
14	1.78	45.55	1.19	54.29	1519
16	1.77	46.33	1.21	54.71	1516
18	1.74	50.25	1.31	56.71	1501
20	1.66	60.40	1.57	61.16	1499
22	1.62	67.97	1.77	63.93	1491
24	1.63	66.17	1.73	63.31	1488
26	1.67	59.50	1.55	60.81	1498
28	1.80	43.28	1.13	53.02	1519
30	1.76	47.30	1.23	55.22	1539
32	1.89	34.16	0.89	47.11	1568
34	1.84	38.66	1.01	50.20	1552
36	1.90	33.47	0.87	46.60	1564
38	1.93	30.94	0.81	44.65	1578
40	1.64	63.94	1.67	62.51	1496
42	1.60	70.95	1.85	64.91	1486
44	1.68	57.59	1.50	60.03	1502
46	1.74	49.86	1.30	56.52	1517
48	1.73	51.59	1.35	57.36	1517
50	1.76	47.39	1.24	55.27	1532
52	1.78	44.99	1.17	53.98	1537
54	1.71	53.97	1.41	58.46	1516
56	1.83	39.69	1.03	50.86	1544
58	1.86	37.33	0.97	49.32	1549

HM 74

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.86	36.94	0.96	49.06	1550
62	1.84	39.43	1.03	50.69	1554
64	1.87	36.64	0.96	48.86	1561
66	1.88	35.45	0.92	48.03	1564
68	1.87	36.01	0.94	48.43	1552
70	1.82	40.98	1.07	51.66	
72	1.89	34.16	0.89	47.11	1550
74	1.86	37.23	0.97	49.26	
76					1515
78					
80	1.74	49.40	1.29	56.29	
82	1.83	40.22	1.05	51.19	
84	1.90	34.05	0.89	47.03	
86	1.93	31.53	0.82	45.12	1475
88	1.94	30.49	0.80	44.29	1536
90	1.94	30.62	0.80	44.39	1550
92	1.90	33.61	0.88	46.70	1618
94	1.92	32.44	0.85	45.82	1581
96	2.04	24.05	0.63	38.54	1566
98	1.87	36.24	0.94	48.58	
100	1.86	36.95	0.96	49.07	1536
102	1.86	36.91	0.96	49.04	1545
104	1.82	40.71	1.06	51.49	1530
106	1.85	37.91	0.99	49.71	1535
108	1.86	37.27	0.97	49.28	1539
110	1.85	38.23	1.00	49.92	1537
112	1.82	40.91	1.07	51.61	1538
114	1.83	40.26	1.05	51.22	1535
116	1.83	39.55	1.03	50.77	1535
118	1.94	30.73	0.80	44.48	1561
120	1.95	29.73	0.78	43.67	1571

HM 74

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.90	34.05	0.89	47.03	1557
124	1.85	37.82	0.99	49.65	1537
126	1.91	32.76	0.85	46.06	1574
128	2.00	26.60	0.69	40.95	1596
130	1.88	35.33	0.92	47.95	1587
132	1.61	69.14	1.80	64.32	1480
134	1.79	44.00	1.15	53.43	1506
136	1.90	33.55	0.87	46.66	1555
138	1.76	47.44	1.24	55.30	1507
140	1.73	50.88	1.33	57.02	1503
142	1.68	57.76	1.51	60.09	1490
144	1.72	52.25	1.36	57.67	1497
146	1.69	56.69	1.48	59.65	1496
148	1.72	52.68	1.37	57.87	1498
150	1.73	51.16	1.33	57.15	1509
152	1.71	53.27	1.39	58.14	1499
154	1.69	56.31	1.47	59.48	1493
156	1.70	54.56	1.42	58.72	1494
158	1.68	57.28	1.49	59.90	1493
160	1.68	57.67	1.50	60.06	1496
162	1.71	53.52	1.40	58.26	1504
164	1.78	45.52	1.19	54.27	1530
166	1.77	46.45	1.21	54.77	1519
168	1.76	47.02	1.23	55.08	1513
170	1.75	48.55	1.27	55.87	1516
172	1.71	54.27	1.42	58.59	
174	1.71	53.11	1.38	58.07	1546
176	1.78	44.80	1.17	53.88	1553
178					
180	1.72	52.26	1.36	57.67	
182	1.70	55.69	1.45	59.22	

HM 74

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.76	47.51	1.24	55.33	
186	1.80	43.24	1.13	52.99	1487
188	1.85	38.38	1.00	50.02	1525
190	1.79	43.85	1.14	53.35	1516
192	1.77	46.75	1.22	54.93	1507
194	1.75	48.46	1.26	55.82	1498
196	1.75	48.61	1.27	55.90	1494
198	1.72	52.58	1.37	57.82	1493
200	1.73	50.69	1.32	56.93	1494
202	1.75	48.43	1.26	55.81	1497
204	1.74	50.08	1.31	56.63	1497
206	1.70	54.50	1.42	58.69	1494
208	1.72	52.50	1.37	57.79	1496
210	1.73	51.35	1.34	57.25	1498
212	1.75	49.10	1.28	56.14	1497
214	1.74	50.04	1.30	56.61	1497
216	1.73	50.66	1.32	56.91	1495
218	1.74	49.49	1.29	56.34	1498
220	1.74	49.62	1.29	56.40	1497
222	1.73	51.53	1.34	57.33	1501
224	1.74	49.78	1.30	56.48	1503
226	1.75	48.69	1.27	55.94	1504
228	1.75	48.02	1.25	55.60	1513
230	1.67	60.09	1.57	61.04	1505
232	1.76	47.66	1.24	55.41	
234	1.83	39.92	1.04	51.00	1517
236					1497

HM 75

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14					
16					1538
18	1.69	56.25	1.47	59.46	1546
20	1.78	44.94	1.17	53.96	1529
22	1.80	43.07	1.12	52.90	1524
24	1.80	42.61	1.11	52.63	1518
26	1.81	41.75	1.09	52.12	1520
28	1.75	48.84	1.27	56.02	1511
30	1.77	45.99	1.20	54.53	1502
32	1.78	45.08	1.18	54.03	1495
34	1.75	48.87	1.27	56.03	1500
36	1.78	45.22	1.18	54.11	1518
38	1.71	53.20	1.39	58.11	1511
40	1.71	53.26	1.39	58.14	1504
42	1.72	52.50	1.37	57.78	1498
44	1.73	51.43	1.34	57.29	1498
46	1.71	54.16	1.41	58.54	1493
48	1.72	52.95	1.38	58.00	1492
50	1.72	51.76	1.35	57.44	1494
52	1.74	50.36	1.31	56.77	1496
54	1.77	46.61	1.22	54.86	1492
56	1.72	52.08	1.36	57.59	1494
58	1.74	49.54	1.29	56.36	1499

HM 75

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.68	57.28	1.49	59.89	1499
62	1.64	64.59	1.68	62.75	1499
64	1.66	61.04	1.59	61.41	1501
66	1.71	53.63	1.40	58.31	1503
68	1.70	55.42	1.45	59.10	1503
70	1.65	62.50	1.63	61.97	1501
72	1.61	69.94	1.82	64.59	1502
74	1.60	70.67	1.84	64.82	1502
76	1.56	78.54	2.05	67.19	1494
78	1.57	76.42	1.99	66.59	1488
80	1.59	72.79	1.90	65.49	1489
82	1.62	67.54	1.76	63.78	1492
84	1.67	59.16	1.54	60.67	1491
86	1.77	46.27	1.21	54.68	1491
88	1.74	50.10	1.31	56.64	1492
90	1.73	51.04	1.33	57.10	1490
92	1.73	51.07	1.33	57.11	1492
94	1.74	49.23	1.28	56.21	1491
96	1.73	51.30	1.34	57.22	1510
98					1518
100					1524
102					
104					
106					
108	1.61	68.72	1.79	64.18	
110	1.61	70.08	1.83	64.63	
112	1.67	59.91	1.56	60.97	1513
114	1.64	64.84	1.69	62.83	1505
116	1.67	59.55	1.55	60.83	1502
118	1.71	53.67	1.40	58.32	1509
120	1.76	47.25	1.23	55.20	1526

HM 75

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.84	39.45	1.03	50.71	1540
124	1.77	45.83	1.19	54.44	1534
126	1.78	44.93	1.17	53.95	1538
128	1.79	43.73	1.14	53.27	1539
130	1.79	44.43	1.16	53.67	1537
132	1.75	48.96	1.28	56.08	1526
134	1.73	50.68	1.32	56.93	1521
136	1.78	45.07	1.18	54.03	1534
138	1.74	49.72	1.30	56.45	1530
140	1.69	56.40	1.47	59.53	1510
142	1.65	61.77	1.61	61.69	1504
144	1.66	60.76	1.58	61.30	1506
146	1.73	50.85	1.33	57.00	1516
148	1.79	44.19	1.15	53.54	1531
150	1.80	43.20	1.13	52.97	1536
152	1.78	45.35	1.18	54.18	1533
154	1.75	48.42	1.26	55.80	1520
156	1.76	47.03	1.23	55.08	1515
158	1.72	52.56	1.37	57.81	1507
160	1.73	50.66	1.32	56.91	1508
162	1.76	48.00	1.25	55.58	1514
164	1.69	56.45	1.47	59.54	1503
166	1.71	53.13	1.39	58.08	1510
168	1.74	49.88	1.30	56.53	1512
170	1.73	51.45	1.34	57.29	1511
172	1.72	52.25	1.36	57.67	1507
174	1.74	49.98	1.30	56.58	1508
176	1.74	49.61	1.29	56.40	1512
178	1.76	47.02	1.23	55.08	1514
180	1.78	44.92	1.17	53.94	1519
182	1.80	43.29	1.13	53.02	1520

HM 75

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.81	42.46	1.11	52.54	1526
186	1.83	40.41	1.05	51.31	1526
188	1.84	39.13	1.02	50.50	1532
190	1.90	33.82	0.88	46.86	1548
192	1.84	38.89	1.01	50.35	1535
194	1.79	44.52	1.16	53.72	1516
196	1.66	61.09	1.59	61.43	
198	1.72	52.00	1.36	57.55	1496
200	1.79	44.15	1.15	53.52	
202					
204					
206					
208	1.75	48.98	1.28	56.09	1446
210	1.70	54.87	1.43	58.86	
212	1.72	51.85	1.35	57.48	
214	1.71	53.61	1.40	58.30	1453
216	1.77	46.14	1.20	54.61	
218	1.77	46.73	1.22	54.93	1453
220					1525
222	1.78	45.35	1.18	54.18	1523
224	1.79	43.87	1.14	53.35	1528
226	1.78	45.45	1.19	54.24	1526
228	1.81	41.52	1.08	51.99	1536
230	1.85	38.17	1.00	49.88	1540
232					
234	1.86	37.22	0.97	49.25	1548
236	1.88	35.67	0.93	48.19	1552
238	1.86	37.59	0.98	49.50	1554
240	1.88	35.15	0.92	47.82	1555
242	1.90	34.03	0.89	47.01	1560
244	1.90	33.67	0.88	46.75	1561

HM 75

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.91	32.91	0.86	46.18	1560
248	1.93	31.57	0.82	45.15	1561
250	1.87	36.49	0.95	48.76	1557
252	1.89	34.74	0.91	47.53	1562
254	1.89	34.77	0.91	47.55	1568
256	1.93	31.48	0.82	45.08	1557
258	1.90	33.52	0.87	46.64	1559
260	1.91	33.03	0.86	46.27	1558
262	1.92	31.94	0.83	45.44	1562
264	1.89	34.14	0.89	47.10	1557
266	1.85	38.47	1.00	50.08	1548
268	1.88	35.52	0.93	48.08	1550
270	1.89	34.13	0.89	47.09	1548
272	1.82	40.53	1.06	51.38	

Hm 77

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14					
16					1538
18	1.73	50.96	1.33	57.06	1546
20	1.70	54.62	1.42	58.75	1529
22	1.72	51.82	1.35	57.47	1524
24	1.71	54.05	1.41	58.49	1518
26	1.69	55.98	1.46	59.34	1520
28	1.68	57.41	1.50	59.95	1511
30	1.64	64.45	1.68	62.69	1502
32	1.59	72.94	1.90	65.54	1495
34	1.73	51.12	1.33	57.13	1500
36	1.70	54.62	1.42	58.75	1518
38	1.66	61.41	1.60	61.56	1511
40	1.67	59.91	1.56	60.97	1504
42	1.65	61.76	1.61	61.69	1498
44	1.64	63.40	1.65	62.31	1498
46	1.71	53.46	1.39	58.23	1493
48	1.62	67.16	1.75	63.65	1492
50	1.62	67.01	1.75	63.60	1494
52	1.62	67.86	1.77	63.89	1496
54	1.61	68.78	1.79	64.20	1492
56	1.60	70.76	1.85	64.85	1494
58	1.65	62.64	1.63	62.03	1499

Hm 77

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.66	60.54	1.58	61.22	1499
62	1.65	62.06	1.62	61.80	1499
64	1.67	59.29	1.55	60.72	1501
66	1.70	55.16	1.44	58.99	1503
68	1.70	55.08	1.44	58.95	1503
70	1.70	55.51	1.45	59.14	1501
72	1.69	56.05	1.46	59.37	1502
74	1.69	56.32	1.47	59.49	1502
76	1.63	65.14	1.70	62.94	1494
78	1.61	68.65	1.79	64.16	1488
80	1.60	71.10	1.85	64.96	1489
82	1.62	66.96	1.75	63.58	1492
84	1.64	64.31	1.68	62.64	1491
86	1.63	65.80	1.72	63.18	1491
88	1.64	64.30	1.68	62.64	1492
90	1.62	67.13	1.75	63.64	1490
92	1.64	64.52	1.68	62.72	1492
94	1.65	62.26	1.62	61.88	1491
96	1.60	72.04	1.88	65.26	1510
98	1.67	58.92	1.54	60.57	1518
100					1524
102					
104					
106					
108	1.64	63.43	1.65	62.32	
110	1.64	64.24	1.67	62.62	
112	1.63	65.22	1.70	62.97	1494
114	1.65	61.84	1.61	61.72	1499
116	1.66	60.29	1.57	61.12	1496
118	1.64	64.53	1.68	62.72	1492
120	1.63	65.21	1.70	62.97	1493

Hm 77

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.63	66.26	1.73	63.34	1489
124	1.64	63.46	1.65	62.33	1493
126	1.64	63.76	1.66	62.44	1493
128	1.63	65.36	1.70	63.02	1494
130	1.67	59.79	1.56	60.92	1498
132	1.67	60.01	1.56	61.01	1499
134	1.64	64.18	1.67	62.60	1493
136	1.60	71.74	1.87	65.16	1487
138	1.64	64.72	1.69	62.79	1495
140	1.73	51.11	1.33	57.13	1519
142	1.77	46.55	1.21	54.83	1535
144	1.81	41.48	1.08	51.96	1554
146					1559
148					1582
150					1496
152					1500
154	1.76	47.76	1.25	55.46	1520
156	1.74	50.07	1.31	56.62	1525
158	1.74	49.38	1.29	56.29	1529
160	1.77	46.43	1.21	54.77	1531
162	1.84	39.13	1.02	50.50	
164	1.87	35.95	0.94	48.38	1554
166	1.88	35.59	0.93	48.13	1557
168	1.85	37.65	0.98	49.53	1552
170	1.88	35.04	0.91	47.75	1553
172	1.86	36.79	0.96	48.96	1556
174	1.90	33.36	0.87	46.52	1554
176	1.89	34.59	0.90	47.42	1555
178	1.86	37.56	0.98	49.48	1553
180	1.88	35.37	0.92	47.98	1548
182	1.89	34.63	0.90	47.45	1558

Hm 77

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.89	34.87	0.91	47.63	1557
186	1.86	37.04	0.97	49.13	1557
188	1.87	36.53	0.95	48.78	1558
190	1.88	35.06	0.91	47.76	1554
192	1.89	34.40	0.90	47.29	1558
194	1.89	34.66	0.90	47.47	1558
196	1.81	42.01	1.10	52.27	
198	1.85	38.34	1.00	49.99	1594
200	1.89	34.30	0.89	47.21	1604
202	1.73	51.31	1.34	57.23	
204	1.82	41.00	1.07	51.67	
206	1.79	43.53	1.14	53.16	
208	1.88	35.68	0.93	48.19	1566
210	1.90	33.47	0.87	46.60	1561
212	1.89	34.58	0.90	47.41	1558
214	1.89	34.68	0.90	47.48	1553
216	1.90	33.63	0.88	46.72	1554
218	1.89	34.25	0.89	47.17	1557
220	1.90	33.99	0.89	46.99	1556
222	1.88	35.83	0.93	48.30	1558
224	1.91	32.60	0.85	45.95	1556
226	1.89	34.30	0.89	47.21	1557
228	1.90	33.73	0.88	46.79	1556
230	1.89	34.34	0.90	47.24	1556
232	1.95	29.55	0.77	43.52	
234	1.89	34.69	0.90	47.49	1558
236	1.90	33.63	0.88	46.72	1562
238	1.97	28.09	0.73	42.28	
240	1.91	32.56	0.85	45.92	1558
242	1.90	33.35	0.87	46.52	1561
244	1.91	33.18	0.87	46.39	1563

Hm 77

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.89	34.34	0.90	47.24	1562
248	1.91	33.14	0.86	46.36	1559
250	1.89	34.17	0.89	47.12	1559
252	1.88	35.20	0.92	47.86	1563
254	1.92	32.07	0.84	45.54	1562
256	1.89	34.74	0.91	47.53	1563
258	1.89	34.64	0.90	47.46	1564
260	1.90	33.85	0.88	46.88	1569
262	1.85	37.74	0.98	49.60	
264	1.81	41.85	1.09	52.18	
266	1.85	38.33	1.00	49.99	
268	1.94	30.51	0.80	44.31	

Hm 78

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12	1.57	77.30	2.02	66.84	
14	1.63	65.44	1.71	63.05	1525
16	1.62	66.93	1.75	63.57	1520
18	1.62	66.83	1.74	63.54	1521
20	1.65	62.42	1.63	61.94	1520
22	1.66	60.60	1.58	61.24	1521
24	1.68	57.23	1.49	59.88	1523
26	1.69	56.34	1.47	59.50	1519
28	1.70	55.24	1.44	59.02	1519
30	1.68	58.42	1.52	60.37	1519
32	1.67	59.57	1.55	60.83	1519
34	1.65	62.28	1.62	61.89	1524
36	1.68	57.59	1.50	60.02	1524
38	1.68	57.38	1.50	59.94	1515
40	1.65	63.00	1.64	62.16	1500
42	1.58	74.83	1.95	66.12	1501
44	1.62	67.71	1.77	63.84	1500
46	1.65	61.73	1.61	61.68	1506
48	1.62	68.04	1.77	63.95	1503
50	1.65	62.50	1.63	61.97	1507
52	1.64	63.70	1.66	62.42	1512
54	1.57	76.98	2.01	66.75	1509
56	1.60	71.79	1.87	65.18	1514
58	1.58	74.69	1.95	66.07	1501

Hm 78

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.59	73.07	1.91	65.58	1508
62	1.61	69.12	1.80	64.31	1506
64	1.61	69.26	1.81	64.36	1502
66	1.59	74.01	1.93	65.87	1503
68	1.59	72.39	1.89	65.37	1505
70	1.62	67.73	1.77	63.85	1506
72	1.61	68.90	1.80	64.24	1513
74	1.61	68.61	1.79	64.14	1507
76	1.62	67.76	1.77	63.86	1506
78	1.58	75.81	1.98	66.41	1504
80	1.65	62.83	1.64	62.09	1511
82	1.59	73.00	1.90	65.56	1501
84	1.60	71.69	1.87	65.15	1499
86	1.66	61.30	1.60	61.52	1507
88	1.65	62.64	1.63	62.02	1508
90	1.64	63.55	1.66	62.36	1506
92	1.64	64.44	1.68	62.69	1506
94	1.56	79.64	2.08	67.50	
96	1.61	68.60	1.79	64.14	1488
98					
100					
102					
104					
106	1.56	79.56	2.07	67.48	
108	1.58	75.86	1.98	66.42	
110	1.56	79.00	2.06	67.32	1500
112	1.60	71.06	1.85	64.95	1506
114	1.55	82.21	2.14	68.19	1498
116	1.56	79.35	2.07	67.42	1499
118	1.55	82.68	2.16	68.31	1499
120	1.55	81.69	2.13	68.05	1496

Hm 78

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.57	78.33	2.04	67.13	1492
124	1.58	75.52	1.97	66.32	1497
126	1.58	75.07	1.96	66.19	1491
128	1.59	72.97	1.90	65.55	1497
130	1.61	69.20	1.80	64.34	1502
132	1.60	70.89	1.85	64.89	1505
134	1.59	72.69	1.90	65.46	1497
136	1.57	76.94	2.01	66.74	1504
138	1.57	77.88	2.03	67.00	1501
140	1.56	78.76	2.05	67.25	1493
142	1.58	75.03	1.96	66.17	1497
144	1.56	78.80	2.05	67.26	1493
146	1.60	70.46	1.84	64.75	1494
148	1.56	80.02	2.09	67.60	1495
150	1.59	73.08	1.91	65.58	1496
152	1.57	76.66	2.00	66.65	1493
154	1.59	73.72	1.92	65.78	1494
156	1.57	77.26	2.01	66.83	1490
158	1.59	73.63	1.92	65.75	1491
160	1.56	79.10	2.06	67.35	1490
162	1.57	78.15	2.04	67.08	1486
164	1.57	78.09	2.04	67.06	1489
166	1.57	77.28	2.01	66.83	1488
168	1.56	79.22	2.07	67.38	1487
170	1.55	82.28	2.15	68.21	1484
172	1.55	82.10	2.14	68.16	1486
174	1.52	88.15	2.30	69.68	1486
176	1.53	85.28	2.22	68.98	1486
178	1.55	81.77	2.13	68.07	1485
180	1.53	86.50	2.26	69.28	1486
182	1.55	82.64	2.15	68.30	1486

Hm 78

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.52	89.28	2.33	69.95	1484
186	1.55	82.62	2.15	68.30	1485
188	1.55	80.90	2.11	67.84	1487
190	1.56	78.66	2.05	67.22	1488
192	1.60	70.78	1.85	64.86	1493
194	1.60	71.33	1.86	65.03	1493
196	1.53	87.35	2.28	69.49	
198	1.58	74.85	1.95	66.12	1480
200	1.62	68.13	1.78	63.98	
202					
204	1.53	85.45	2.23	69.02	
206	1.58	75.35	1.96	66.27	
208	1.63	66.24	1.73	63.33	1502
210	1.67	58.83	1.53	60.53	1509
212	1.64	63.82	1.66	62.46	1503
214	1.64	63.91	1.67	62.49	1501
216	1.66	60.34	1.57	61.14	1508
218	1.62	67.35	1.76	63.72	1496
220	1.64	64.60	1.68	62.75	1497
222	1.63	65.17	1.70	62.95	1496
224	1.62	68.20	1.78	64.01	1493
226	1.64	64.84	1.69	62.84	1496
228	1.60	70.59	1.84	64.80	1480
230	1.59	72.31	1.89	65.34	1484
232	1.62	67.68	1.76	63.83	1490
234	1.62	67.64	1.76	63.82	1493
236	1.63	65.03	1.70	62.90	1494
238	1.63	66.51	1.73	63.42	1493
240	1.59	72.85	1.90	65.51	1486
242	1.64	64.82	1.69	62.83	1489
244	1.65	63.07	1.64	62.19	1488

Hm 78

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.62	67.26	1.75	63.69	1486
248	1.62	68.30	1.78	64.04	1488
250	1.63	66.07	1.72	63.27	1492
252	1.64	63.75	1.66	62.44	1496
254	1.59	73.31	1.91	65.65	1486
256	1.58	75.59	1.97	66.34	1484
258	1.63	66.52	1.73	63.43	1493
260	1.65	62.87	1.64	62.11	1494
262	1.64	64.39	1.68	62.67	1489
264	1.63	65.59	1.71	63.10	1491
266	1.62	67.66	1.76	63.82	1487
268	1.61	69.99	1.83	64.60	1488
270	1.62	66.93	1.75	63.57	1488
272	1.63	65.03	1.70	62.90	1494
274	1.65	63.18	1.65	62.23	1496
276	1.66	60.24	1.57	61.10	1493
278	1.64	64.58	1.68	62.74	1491
280	1.64	64.34	1.68	62.65	1490
282	1.61	68.49	1.79	64.11	1488
284	1.63	66.10	1.72	63.28	1489
286	1.64	63.53	1.66	62.36	1491
288	1.64	63.95	1.67	62.51	1492
290	1.64	63.31	1.65	62.27	1491
292	1.63	65.39	1.70	63.03	1490
294	1.64	64.33	1.68	62.65	1490
296					
298	1.64	63.34	1.65	62.28	1470
300	1.70	55.57	1.45	59.17	

HM 80

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					1501
14	1.61	68.64	1.79	64.15	1508
16	1.63	65.00	1.69	62.89	1511
18	1.63	65.72	1.71	63.15	1513
20	1.64	64.39	1.68	62.67	1512
22	1.67	58.69	1.53	60.48	1516
24	1.68	57.75	1.51	60.09	1519
26	1.71	53.14	1.39	58.08	1520
28	1.68	57.82	1.51	60.12	1515
30	1.68	57.72	1.50	60.08	1516
32	1.66	60.93	1.59	61.37	1509
34	1.64	63.38	1.65	62.30	1505
36	1.63	65.14	1.70	62.94	1503
38	1.63	65.80	1.72	63.18	1504
40	1.65	62.96	1.64	62.14	1503
42	1.61	69.30	1.81	64.38	1503
44	1.61	70.09	1.83	64.63	1501
46	1.62	67.94	1.77	63.92	1504
48	1.61	68.65	1.79	64.16	1507
50	1.62	68.04	1.77	63.95	1503
52	1.61	69.66	1.82	64.49	1503
54	1.56	80.52	2.10	67.74	1498
56	1.57	76.66	2.00	66.65	1497
58	1.59	72.89	1.90	65.52	1502

HM 80

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.63	65.63	1.71	63.12	1504
62	1.60	70.61	1.84	64.80	1502
64	1.59	72.32	1.89	65.35	1498
66	1.57	77.32	2.02	66.84	1497
68	1.56	79.28	2.07	67.40	1496
70	1.58	75.73	1.97	66.38	1497
72	1.60	71.48	1.86	65.08	1502
74	1.58	75.72	1.97	66.38	1497
76	1.56	78.59	2.05	67.20	1493
78	1.58	74.94	1.95	66.15	1497
80	1.58	74.46	1.94	66.00	1497
82	1.60	71.67	1.87	65.14	1494
84	1.57	76.76	2.00	66.68	1495
86	1.57	76.30	1.99	66.55	1494
88	1.56	79.31	2.07	67.41	1494
90	1.60	71.75	1.87	65.17	1496
92	1.57	77.40	2.02	66.87	1496
94	1.52	89.94	2.35	70.11	
96	1.54	84.46	2.20	68.77	1518
98					
100					
102					
104					
106					
108					
110	1.54	84.00	2.19	68.65	
112	1.59	74.12	1.93	65.90	
114	1.59	74.17	1.93	65.92	
116	1.62	68.17	1.78	64.00	
118	1.61	70.08	1.83	64.63	
120	1.57	76.88	2.00	66.72	

HM 80

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.59	73.92	1.93	65.84	
124	1.55	81.08	2.11	67.89	1481
126	1.57	78.33	2.04	67.13	1487
128	1.60	71.96	1.88	65.23	1499
130	1.59	73.68	1.92	65.77	1494
132	1.59	73.99	1.93	65.86	1496
134	1.58	74.77	1.95	66.10	1494
136	1.58	75.41	1.97	66.29	1492
138	1.56	79.67	2.08	67.50	1490
140	1.57	78.11	2.04	67.07	1488
142	1.56	79.49	2.07	67.45	1491
144	1.56	79.00	2.06	67.32	1491
146	1.54	83.42	2.18	68.51	1488
148	1.52	88.43	2.31	69.75	1487
150	1.53	87.12	2.27	69.43	1487
152	1.53	86.54	2.26	69.29	1487
154	1.53	86.35	2.25	69.24	1487
156	1.52	87.72	2.29	69.58	1487
158	1.55	82.63	2.15	68.30	1487
160	1.55	82.44	2.15	68.25	1489
162	1.57	77.47	2.02	66.89	1489
164	1.60	71.76	1.87	65.17	1491
166	1.60	71.54	1.87	65.10	1492
168	1.56	79.83	2.08	67.55	1489
170	1.57	77.63	2.02	66.93	1489
172	1.58	76.15	1.99	66.51	1489
174	1.56	80.11	2.09	67.63	1488
176	1.60	71.32	1.86	65.03	1492
178	1.60	71.04	1.85	64.94	1497
180	1.65	62.37	1.63	61.92	1499
182	1.63	65.36	1.70	63.02	1497

HM 80

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.62	68.02	1.77	63.94	1499
186	1.62	66.79	1.74	63.53	1497
188	1.63	66.68	1.74	63.49	1496
190	1.64	64.77	1.69	62.81	1495
192	1.64	63.46	1.65	62.33	1498
194	1.60	71.09	1.85	64.96	1493
196					
198	1.62	67.21	1.75	63.67	1512
200	1.62	67.72	1.77	63.84	1519
202					
204					
206					
208					
210					
212					
214					
216					
218	1.58	75.23	1.96	66.23	
220	1.56	78.64	2.05	67.22	
222	1.54	84.67	2.21	68.83	
224	1.57	77.49	2.02	66.89	
226	1.55	81.38	2.12	67.97	
228	1.61	70.01	1.83	64.61	
230	1.56	79.40	2.07	67.43	
232	1.60	71.31	1.86	65.03	
234	1.61	70.29	1.83	64.70	
236	1.61	68.48	1.79	64.10	
238	1.66	61.56	1.61	61.61	
240	1.62	67.41	1.76	63.74	
242	1.64	64.85	1.69	62.84	1508
244	1.60	70.87	1.85	64.89	

HM 80

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.56	78.97	2.06	67.31	
248	1.62	67.08	1.75	63.63	1493
250	1.62	67.25	1.75	63.68	1495
252	1.61	69.99	1.82	64.60	1500
254	1.64	64.38	1.68	62.67	1498
256	1.63	65.18	1.70	62.96	1491
258	1.62	66.94	1.75	63.57	1489
260	1.62	67.48	1.76	63.76	1487
262	1.60	71.83	1.87	65.19	1486
264	1.62	67.52	1.76	63.78	1488
266	1.61	68.65	1.79	64.16	1488
268	1.63	66.67	1.74	63.48	1488
270	1.60	70.98	1.85	64.92	1488
272	1.61	70.16	1.83	64.66	1486
274	1.60	70.43	1.84	64.74	1487
276	1.63	65.79	1.72	63.17	1487
278	1.59	72.32	1.89	65.35	1488
280	1.62	67.49	1.76	63.76	1490
282	1.60	71.88	1.87	65.21	1490
284	1.54	82.95	2.16	68.38	1484
286	1.60	71.44	1.86	65.07	1487
288	1.60	70.32	1.83	64.71	1487
290	1.57	76.87	2.00	66.71	1488
292	1.60	71.06	1.85	64.95	1487
294	1.59	73.31	1.91	65.65	1487
296	1.59	73.04	1.90	65.57	1484
298	1.53	85.61	2.23	69.06	

HM 81

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14					
16					
18	1.66	60.16	1.57	61.07	
20	1.68	57.24	1.49	59.88	
22	1.66	61.57	1.61	61.62	
24	1.66	60.70	1.58	61.28	1493
26	1.62	67.27	1.75	63.69	1491
28	1.64	64.03	1.67	62.54	1490
30	1.60	71.56	1.87	65.11	1487
32	1.59	72.22	1.88	65.31	1487
34	1.61	70.10	1.83	64.64	1487
36	1.60	70.46	1.84	64.75	1488
38	1.60	70.91	1.85	64.90	1490
40	1.65	62.81	1.64	62.09	1494
42	1.66	60.75	1.58	61.30	1493
44	1.59	73.14	1.91	65.60	1485
46	1.57	76.79	2.00	66.69	1482
48	1.58	75.95	1.98	66.45	1482
50	1.59	73.57	1.92	65.73	1482
52	1.58	74.54	1.94	66.03	1482
54	1.60	70.79	1.85	64.86	1482
56	1.63	65.29	1.70	63.00	1485
58	1.62	67.78	1.77	63.86	1484

HM 81

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.60	71.08	1.85	64.95	1483
62	1.61	69.70	1.82	64.51	1487
64	1.64	64.45	1.68	62.69	1490
66	1.62	66.91	1.74	63.56	1489
68	1.60	70.70	1.84	64.83	1487
70	1.66	61.17	1.59	61.46	1488
72	1.62	67.77	1.77	63.86	1487
74	1.65	62.78	1.64	62.08	1490
76	1.65	62.88	1.64	62.11	1491
78	1.65	62.31	1.62	61.90	1491
80	1.64	64.31	1.68	62.64	1490
82	1.66	60.40	1.57	61.16	1498
84	1.71	53.77	1.40	58.37	1515
86	1.82	40.78	1.06	51.53	1551
88	1.83	39.75	1.04	50.89	1561
90	1.92	32.29	0.84	45.71	1580
92	1.97	28.33	0.74	42.49	1589
94					
96	1.71	53.61	1.40	58.30	
98	1.93	31.49	0.82	45.09	1572
100					
102					
104	1.80	42.92	1.12	52.81	
106	1.91	33.22	0.87	46.41	
108	1.94	30.22	0.79	44.07	
110	1.96	28.98	0.76	43.04	
112	2.10	20.58	0.54	34.92	
114	2.05	23.00	0.60	37.49	
116	2.05	23.36	0.61	37.85	
118	2.05	23.37	0.61	37.86	1466
120	1.71	53.41	1.39	58.20	1526

HM 81

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.85	37.74	0.98	49.60	
124	1.88	35.50	0.93	48.07	
126	1.77	46.13	1.20	54.60	
128	1.63	65.29	1.70	63.00	
130	1.67	59.22	1.54	60.69	
132	1.68	57.36	1.50	59.93	
134	1.71	54.23	1.41	58.57	
136	1.68	57.53	1.50	60.00	1492
138	1.66	61.39	1.60	61.55	1494
140	1.67	59.69	1.56	60.88	1491
142	1.66	61.48	1.60	61.58	1490
144	1.66	60.56	1.58	61.22	1489
146	1.67	59.14	1.54	60.66	1491
148	1.64	64.13	1.67	62.58	1491
150	1.66	61.11	1.59	61.44	1493
152	1.68	58.34	1.52	60.34	1496
154	1.69	56.77	1.48	59.68	1502
156	1.71	53.10	1.38	58.07	1504
158	1.66	60.91	1.59	61.36	1494
160	1.66	61.12	1.59	61.44	1489
162	1.65	62.98	1.64	62.15	1490
164	1.67	58.81	1.53	60.53	1491
166	1.65	62.44	1.63	61.95	1490
168	1.65	62.90	1.64	62.12	1489
170	1.70	55.03	1.43	58.93	1497
172	1.73	50.80	1.32	56.98	1504
174	1.71	54.12	1.41	58.53	1505
176	1.72	52.05	1.36	57.57	1506
178	1.76	47.73	1.24	55.45	1513
180	1.74	50.35	1.31	56.76	1517
182	1.71	54.19	1.41	58.56	1509

HM 81

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.69	55.76	1.45	59.25	1505
186	1.71	53.89	1.41	58.42	1501
188	1.70	54.85	1.43	58.85	1500
190	1.71	53.23	1.39	58.12	1505
192	1.69	56.22	1.47	59.45	1504
194	1.69	56.94	1.48	59.75	1503
196	1.62	66.71	1.74	63.50	
198	1.68	57.48	1.50	59.98	1524
200	1.69	55.81	1.46	59.27	1523
202					
204					
206	1.65	62.18	1.62	61.85	
208	1.67	59.12	1.54	60.65	
210	1.69	57.14	1.49	59.84	
212	1.68	57.79	1.51	60.11	
214	1.72	52.55	1.37	57.81	
216	1.70	54.94	1.43	58.89	
218	1.72	52.71	1.37	57.88	
220	1.74	49.42	1.29	56.30	1499
222	1.75	48.95	1.28	56.07	1498
224	1.72	52.01	1.36	57.56	1496
226	1.70	55.21	1.44	59.01	1490
228	1.69	56.35	1.47	59.50	1490
230	1.71	53.51	1.40	58.25	1490
232	1.71	53.04	1.38	58.04	1493
234	1.71	53.96	1.41	58.45	1491
236	1.70	55.37	1.44	59.08	1492
238	1.73	51.44	1.34	57.29	1498
240	1.75	49.02	1.28	56.10	1495
242	1.75	48.57	1.27	55.88	1495
244	1.73	51.56	1.34	57.35	1494

HM 81

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
246	1.71	53.78	1.40	58.37	1493
248	1.71	53.67	1.40	58.33	1492
250	1.71	54.12	1.41	58.52	1491
252	1.68	58.08	1.51	60.23	1488
254	1.68	57.90	1.51	60.16	1489
256	1.70	55.72	1.45	59.23	1490
258	1.68	58.31	1.52	60.32	1490
260	1.70	54.49	1.42	58.69	1491
262	1.68	58.42	1.52	60.37	1491
264	1.68	57.54	1.50	60.00	1492
266	1.71	53.34	1.39	58.17	1492
268	1.69	56.22	1.47	59.45	1492
270	1.68	57.17	1.49	59.85	1490
272	1.71	53.05	1.38	58.04	1491
274	1.68	58.40	1.52	60.36	1493
276	1.68	58.20	1.52	60.28	1494
278	1.74	49.51	1.29	56.35	1504
280	1.78	44.83	1.17	53.89	1520
282	1.82	41.18	1.07	51.78	1527
284	1.81	42.46	1.11	52.54	1527
286	1.72	51.76	1.35	57.44	
288	1.83	40.06	1.04	51.09	1553
290	1.81	41.73	1.09	52.11	1565

HM 86

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6	1.78	44.78	1.17	53.87	
8	1.80	42.96	1.12	52.83	
10	1.83	39.83	1.04	50.94	
12	1.77	46.35	1.21	54.72	
14	1.79	44.19	1.15	53.54	1547
16	1.83	40.28	1.05	51.22	1558
18	1.87	36.40	0.95	48.70	1562
20	1.84	38.64	1.01	50.19	1561
22	1.84	39.28	1.02	50.60	1557
24	1.87	36.68	0.96	48.88	1560
26	1.85	37.80	0.99	49.64	1557
28	1.87	36.42	0.95	48.71	1562
30	1.84	38.89	1.01	50.35	1550
32	1.83	39.61	1.03	50.81	1550
34	1.87	36.62	0.95	48.84	1563
36	1.84	39.29	1.02	50.60	1552
38	1.84	38.83	1.01	50.31	1554
40	1.86	37.24	0.97	49.26	1556
42	1.85	38.08	0.99	49.82	1553
44	1.85	38.27	1.00	49.94	1555
46	1.87	36.45	0.95	48.73	1557
48	1.86	36.99	0.96	49.10	1551
50	1.85	38.23	1.00	49.92	1551
52	1.89	34.76	0.91	47.55	1560
54	1.87	36.01	0.94	48.43	1565
56	1.89	34.90	0.91	47.65	1567
58	1.87	35.92	0.94	48.36	1558

HM 86

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
60	1.96	29.05	0.76	43.10	1561
62	1.89	34.83	0.91	47.59	1564
64	1.93	31.31	0.82	44.94	1566
66	1.88	35.81	0.93	48.28	1568
68	1.94	30.81	0.80	44.55	1575
70	1.91	33.16	0.86	46.37	1566
72	1.89	34.54	0.90	47.39	1564
74	1.91	32.80	0.86	46.10	1565
76	1.89	34.75	0.91	47.54	1568
78	1.88	35.23	0.92	47.88	1567
80	1.86	37.51	0.98	49.44	1565
82	1.86	36.85	0.96	49.00	1560
84	1.86	36.84	0.96	48.99	1560
86	1.91	33.13	0.86	46.35	1560
88	1.91	32.64	0.85	45.98	1576
90	1.91	33.02	0.86	46.26	1577
92	1.94	30.34	0.79	44.16	1589
94	1.84	39.21	1.02	50.55	
96	1.87	36.20	0.94	48.55	1552
98	1.95	29.90	0.78	43.81	
100					
102	1.91	32.96	0.86	46.22	
104	1.85	38.24	1.00	49.93	
106	1.86	37.10	0.97	49.17	
108	1.92	32.12	0.84	45.58	
110	1.92	32.14	0.84	45.59	1531
112	1.95	29.97	0.78	43.87	
114	1.90	33.85	0.88	46.88	1569
116	1.96	29.24	0.76	43.26	1575
118	1.94	30.25	0.79	44.10	1580
120	1.93	31.09	0.81	44.77	

HM 86

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
122	1.89	34.22	0.89	47.16	1597
124	1.92	32.39	0.84	45.78	1581
126	1.91	33.17	0.86	46.38	
128	1.89	34.70	0.90	47.50	1589
130	1.91	32.71	0.85	46.03	1593
132	1.92	32.21	0.84	45.64	1588
134	1.84	39.11	1.02	50.49	
136	1.88	35.78	0.93	48.26	1542
138	1.96	29.18	0.76	43.21	1570
140	1.87	36.47	0.95	48.74	1555
142	1.88	34.99	0.91	47.71	1558
144	1.89	34.56	0.90	47.40	1558
146	1.87	36.63	0.96	48.85	1552
148	1.94	30.34	0.79	44.17	1587
150	1.98	27.51	0.72	41.77	1586
152	1.96	29.15	0.76	43.18	1582
154	1.91	32.80	0.86	46.10	1572
156	1.93	31.66	0.83	45.22	1569
158	1.92	31.86	0.83	45.38	1576
160	1.92	31.77	0.83	45.31	1575
162	1.95	30.19	0.79	44.04	1580
164	1.95	29.95	0.78	43.85	1584
166	1.93	31.34	0.82	44.97	1581
168	1.93	31.08	0.81	44.76	1575
170	1.92	31.91	0.83	45.41	
172	1.96	29.39	0.77	43.38	1585
174	1.94	30.81	0.80	44.55	1575
176	1.92	32.25	0.84	45.68	1575
178	1.97	28.31	0.74	42.47	1574
180	1.94	30.91	0.81	44.63	
182	1.92	32.01	0.83	45.50	

HM 86

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
184	1.92	32.42	0.85	45.81	1585
186	1.92	32.23	0.84	45.66	1582
188	1.86	36.74	0.96	48.93	1564
190	1.84	39.31	1.02	50.61	
192	1.79	43.89	1.14	53.37	
194	1.74	49.67	1.29	56.43	

Hm 87

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
0					
2					
4					
6					
8					
10					
12					
14					
16	1.64	64.50	1.68	62.71	1512
18	1.76	46.94	1.22	55.04	1512
20	1.79	43.87	1.14	53.36	1502
22	1.79	43.94	1.15	53.39	1513
24	1.87	36.13	0.94	48.51	1516
26	1.69	56.41	1.47	59.53	1490
28	1.69	57.13	1.49	59.83	1489
30	1.73	51.58	1.34	57.35	1499
32	1.69	57.12	1.49	59.83	1485
34	1.70	55.63	1.45	59.19	1491
36	1.80	42.95	1.12	52.83	1500
38	1.69	56.77	1.48	59.68	1482
40	1.69	56.63	1.48	59.62	1484
42	1.71	53.70	1.40	58.34	1489
44	1.83	40.14	1.05	51.14	1538
46	1.89	34.16	0.89	47.11	1519
48	1.96	29.34	0.77	43.34	1565
50	1.87	36.40	0.95	48.70	1548
52	1.86	37.48	0.98	49.43	1563
54	1.79	43.84	1.14	53.34	1519
56	1.77	46.31	1.21	54.70	1507
58	1.77	46.68	1.22	54.90	1504
60	1.84	38.89	1.01	50.35	1535

Hm 87

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
62	1.79	44.48	1.16	53.70	1519
64	1.80	43.44	1.13	53.11	1517
66	1.78	45.65	1.19	54.34	1509
68	1.71	53.10	1.38	58.06	1486
70	1.72	52.19	1.36	57.64	1486
72	1.71	53.39	1.39	58.19	1487
74	1.70	54.68	1.43	58.78	1484
76	1.70	55.69	1.45	59.22	1485
78	1.71	53.87	1.40	58.41	1489
80	1.73	50.67	1.32	56.92	1495
82	1.74	50.21	1.31	56.69	1510
84	1.76	47.43	1.24	55.29	1519
86	1.79	43.64	1.14	53.22	1538
88	1.85	38.35	1.00	50.00	1545
90	1.76	47.14	1.23	55.14	1526
92	1.65	62.59	1.63	62.01	1493
94	1.65	62.11	1.62	61.82	1499
96	1.66	61.33	1.60	61.53	1509
98	1.79	44.43	1.16	53.67	1536
100	1.69	56.22	1.47	59.45	1547
102					
104	1.49	98.49	2.57	71.97	
106	1.62	68.41	1.78	64.08	
108	1.73	51.60	1.35	57.36	1496
110	1.71	53.42	1.39	58.21	1495
112	1.69	55.82	1.46	59.28	1507
114	1.72	52.49	1.37	57.78	1515
116	1.69	56.87	1.48	59.72	1502
118	1.79	44.06	1.15	53.46	1544
120	1.91	32.66	0.85	45.99	1561
122	2.04	23.74	0.62	38.24	1537

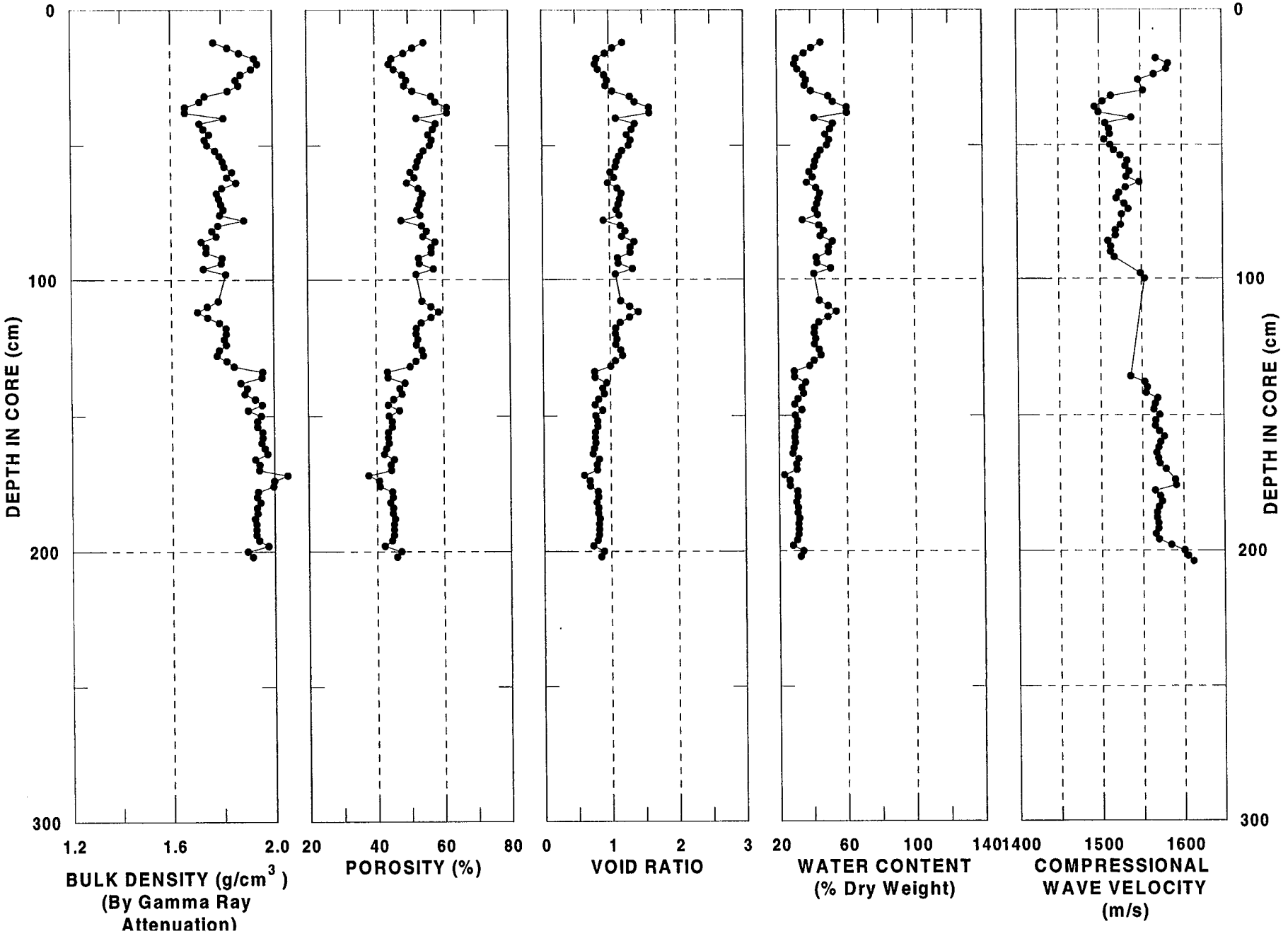
Hm 87

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
124	1.79	44.49	1.16	53.71	1512
126	1.88	35.56	0.93	48.11	1569
128	1.93	30.95	0.81	44.66	1604
130	1.95	29.77	0.78	43.70	1607
132	1.89	34.48	0.90	47.34	1588
134	2.06	22.43	0.58	36.90	
136	2.16	17.25	0.45	31.02	
138	2.05	22.92	0.60	37.41	
140	1.81	42.18	1.10	52.37	1521
142	1.74	50.37	1.31	56.77	1503
144	1.74	49.75	1.30	56.47	1497
146	1.75	48.04	1.25	55.61	1502
148	1.72	51.92	1.35	57.52	1498
150	1.71	53.50	1.39	58.24	1502
152	1.89	34.35	0.90	47.24	1507
154	1.78	45.04	1.17	54.01	1527
156	1.74	49.79	1.30	56.49	1516
158	1.76	47.65	1.24	55.41	1504
160	1.80	42.51	1.11	52.57	1518
162	1.74	49.60	1.29	56.40	1512
164	1.79	44.41	1.16	53.66	1522
166	1.79	43.81	1.14	53.32	1520
168	1.76	47.57	1.24	55.36	1522
170	1.73	50.44	1.32	56.81	1513
172	1.73	50.98	1.33	57.07	1507
174	1.73	51.47	1.34	57.30	1498
176	1.69	55.93	1.46	59.32	1498
178	1.70	55.01	1.43	58.92	1497
180	1.73	51.08	1.33	57.12	1498
182	1.73	51.59	1.35	57.36	1505
184	1.75	48.81	1.27	56.00	1495
186	1.83	40.40	1.05	51.30	1507

Hm 87

Sample Depth (cm)	Wet Bulk Density (g/cm^3)	Water Content (%)	Void Ratio	Porosity (%)	Vp (m/s)
188	1.74	49.59	1.29	56.39	1498
190	1.82	41.25	1.08	51.82	1507
192	1.71	53.41	1.39	58.21	1496
194	1.78	45.50	1.19	54.26	1496
196	1.65	62.50	1.63	61.97	
198	1.81	42.44	1.11	52.53	
200					1519
202					
204					
206	1.70	54.61	1.42	58.74	
208	1.77	46.25	1.21	54.67	1506
210	1.76	47.73	1.24	55.45	1502
212	1.76	47.12	1.23	55.13	1502
214	1.74	50.03	1.30	56.61	1495
216	1.74	49.56	1.29	56.37	1493
218	1.73	51.27	1.34	57.20	1493
220	1.76	48.01	1.25	55.59	1494
222	1.75	48.40	1.26	55.79	1495
224	1.77	46.50	1.21	54.80	1499
226	1.74	49.23	1.28	56.21	1502
228	1.75	49.05	1.28	56.12	1499
230	1.83	40.14	1.05	51.14	1507
232	1.86	37.19	0.97	49.23	1509
234	1.74	50.30	1.31	56.74	1497
236	1.76	47.47	1.24	55.31	1498
238	1.75	48.21	1.26	55.69	1498
240	1.74	49.88	1.30	56.53	1497
242	1.87	36.05	0.94	48.45	1505
244	1.74	49.79	1.30	56.49	1501
246	1.62	66.86	1.74	63.55	
248					1464

HM 3, TAMU GEOTEK LOGGER DATA



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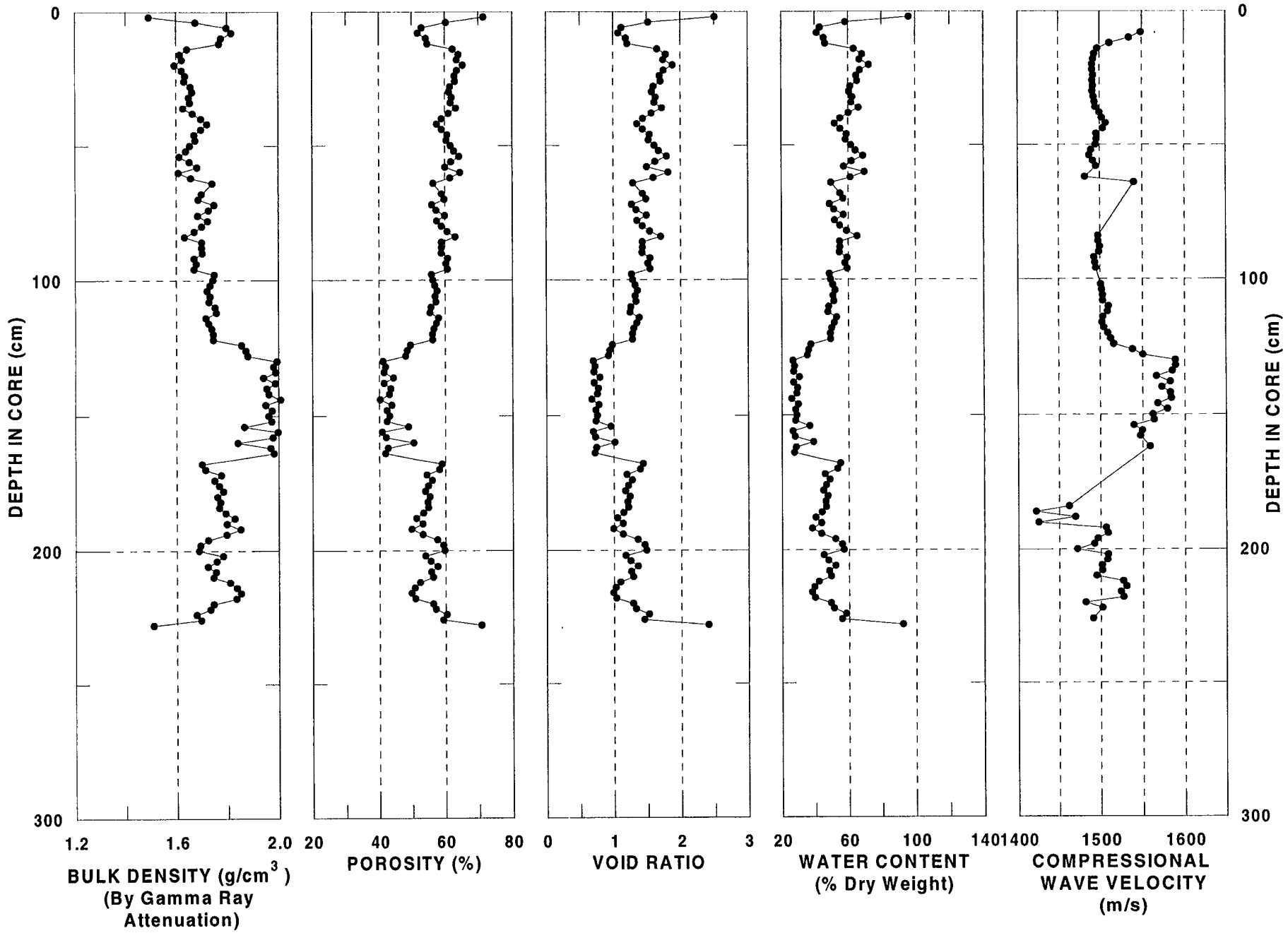
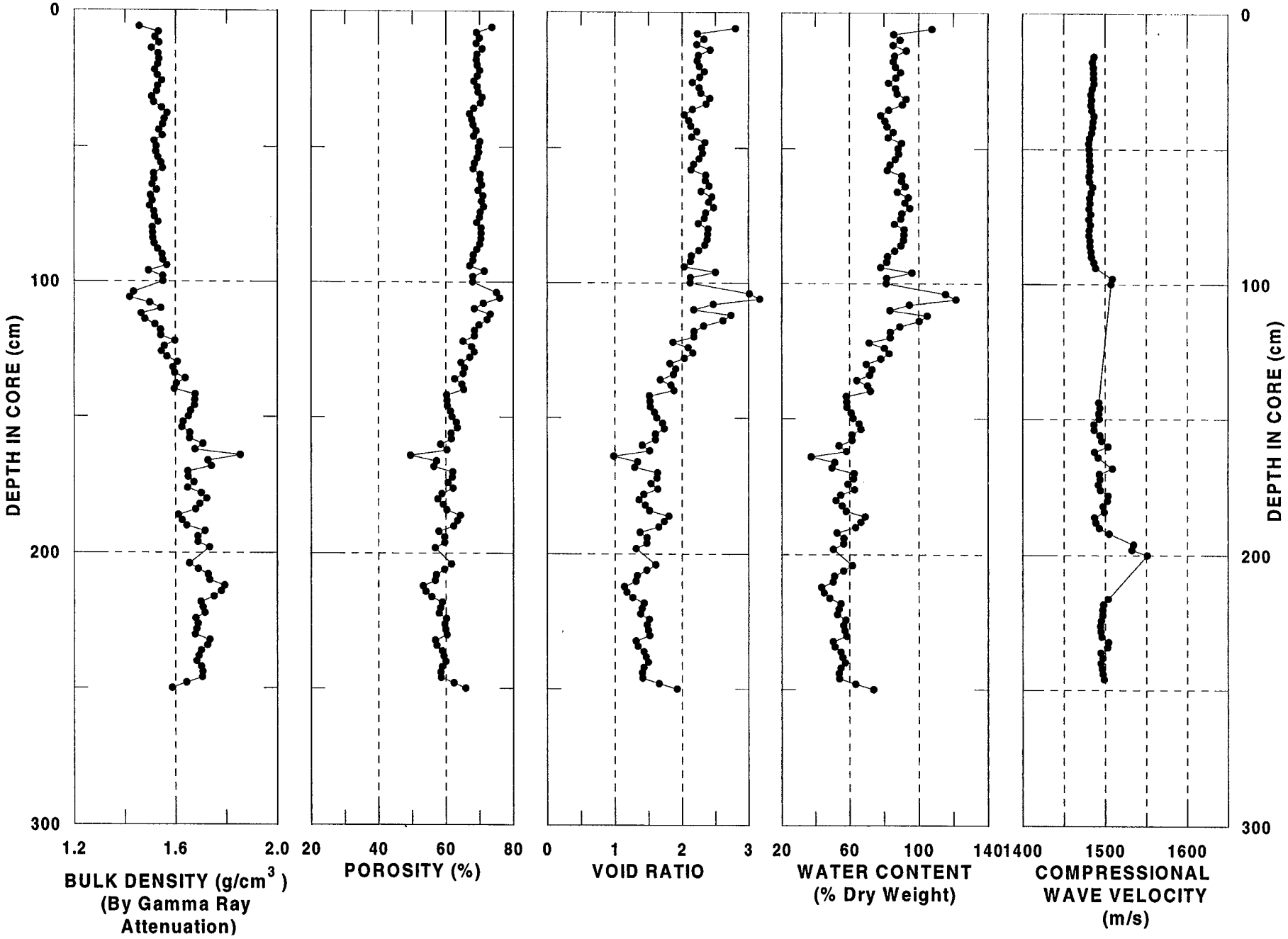
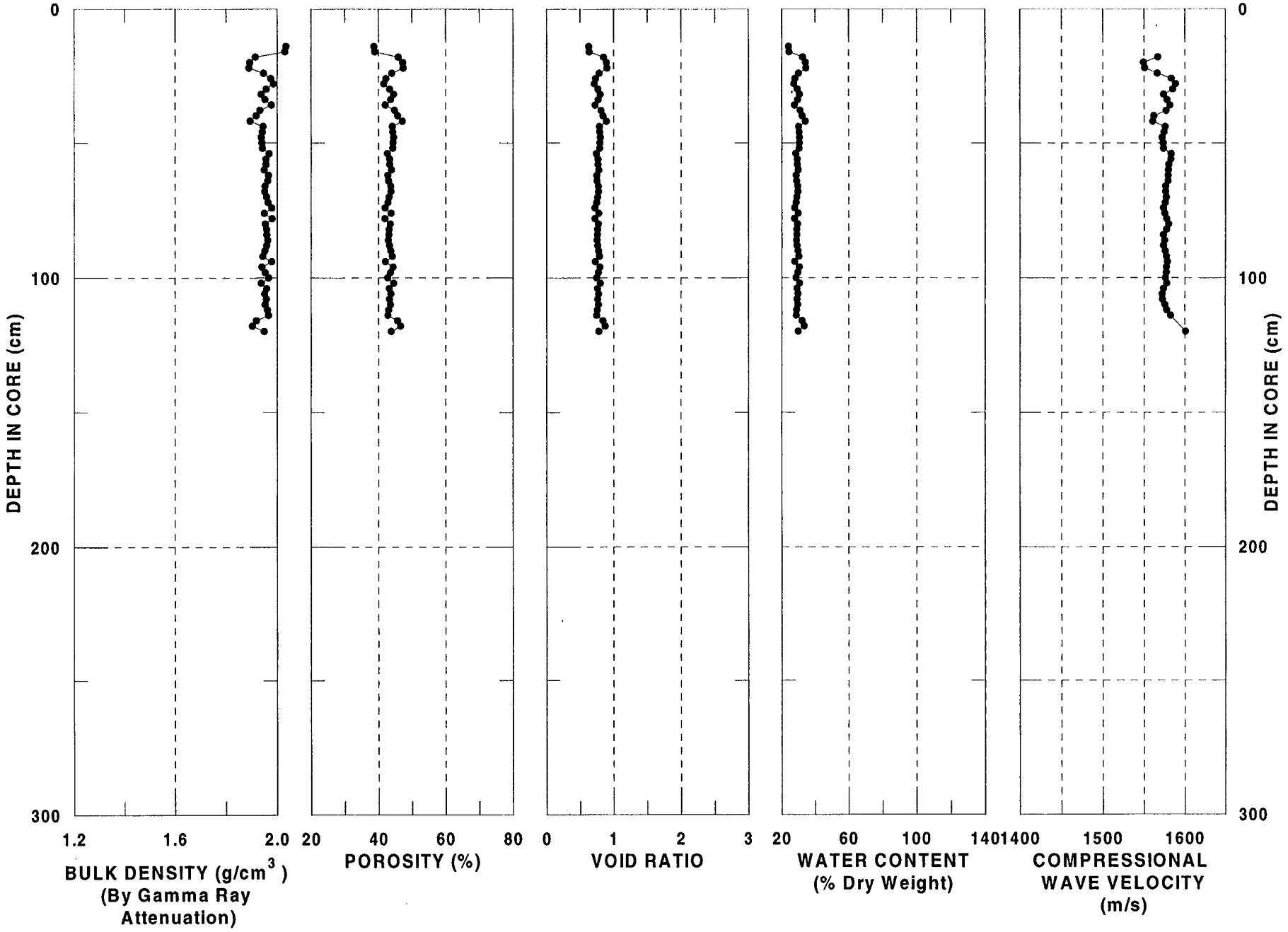


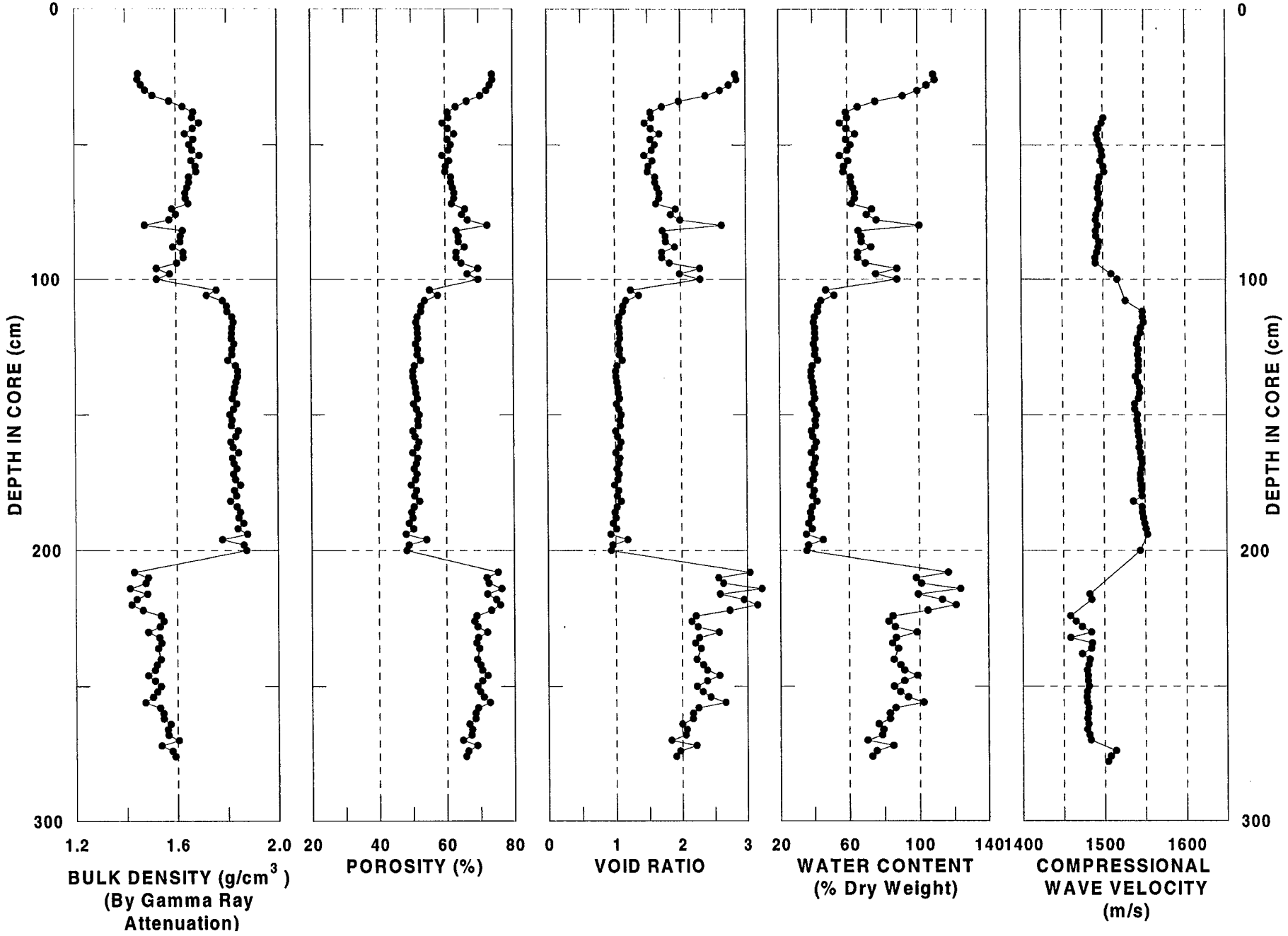
HM 5, TAMU GEOTEK LOGGER DATA



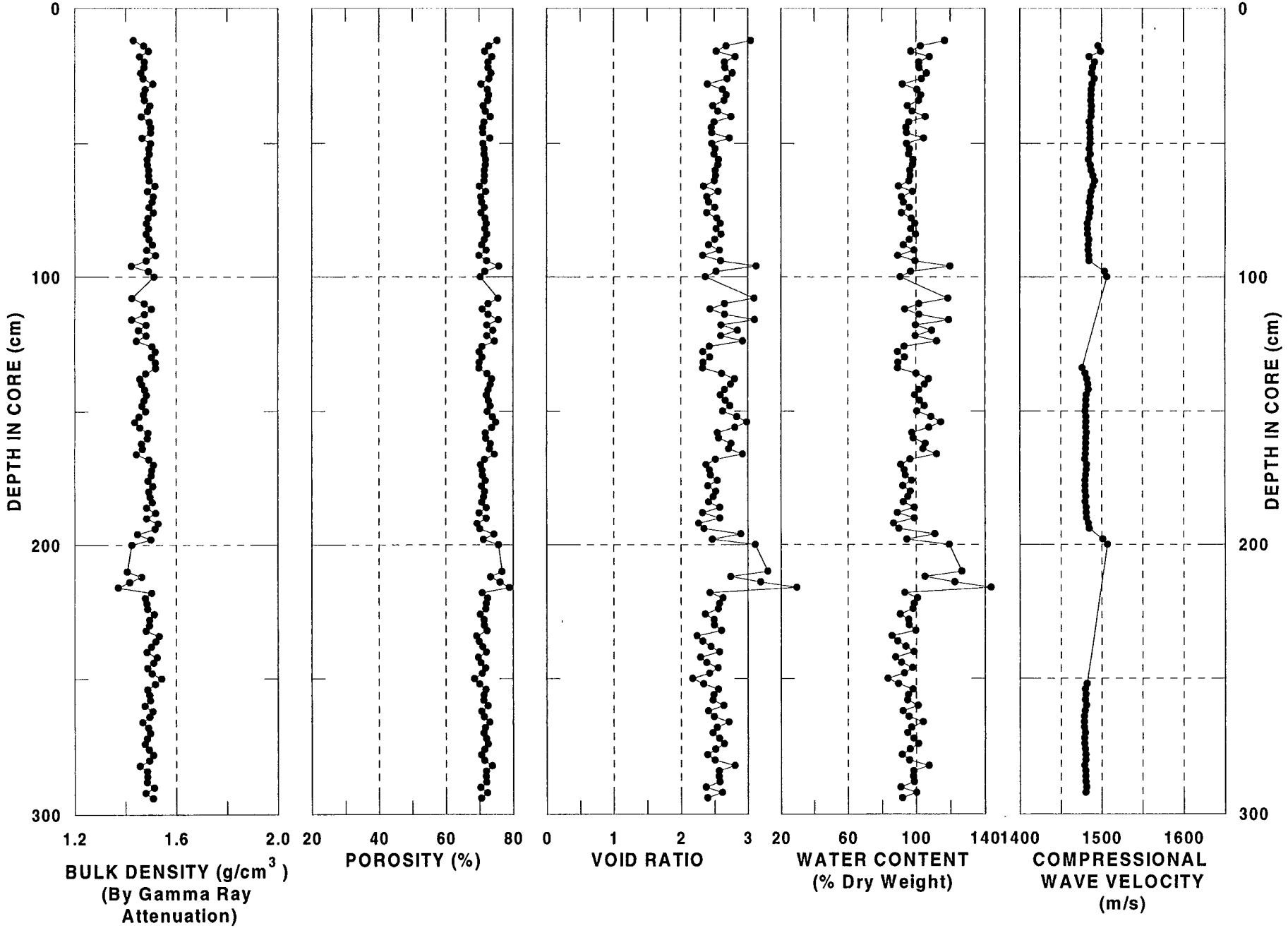
HM 9, TAMU GEOTEK LOGGER DATA



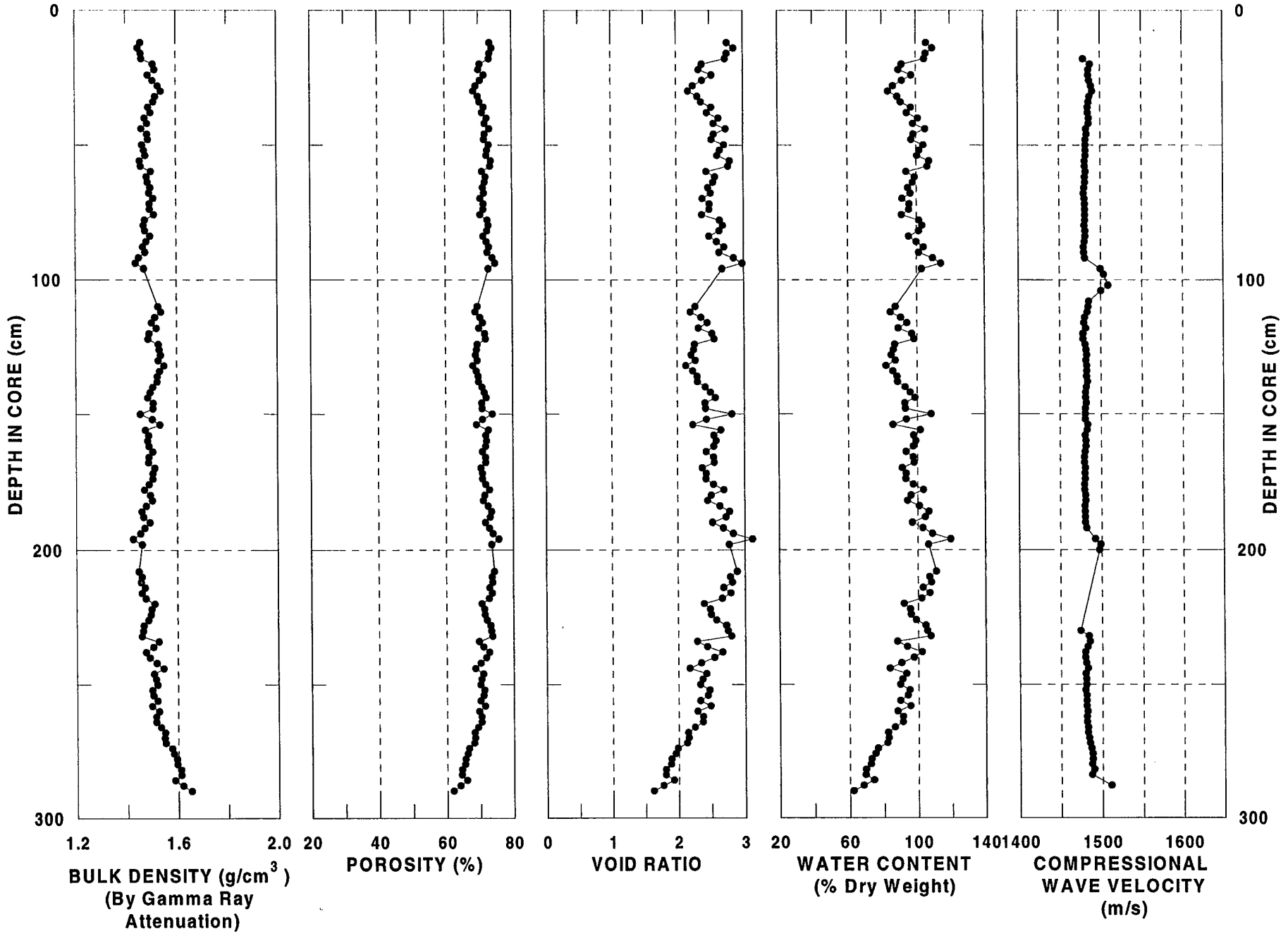
HM 11, TAMU GEOTEK LOGGER DATA



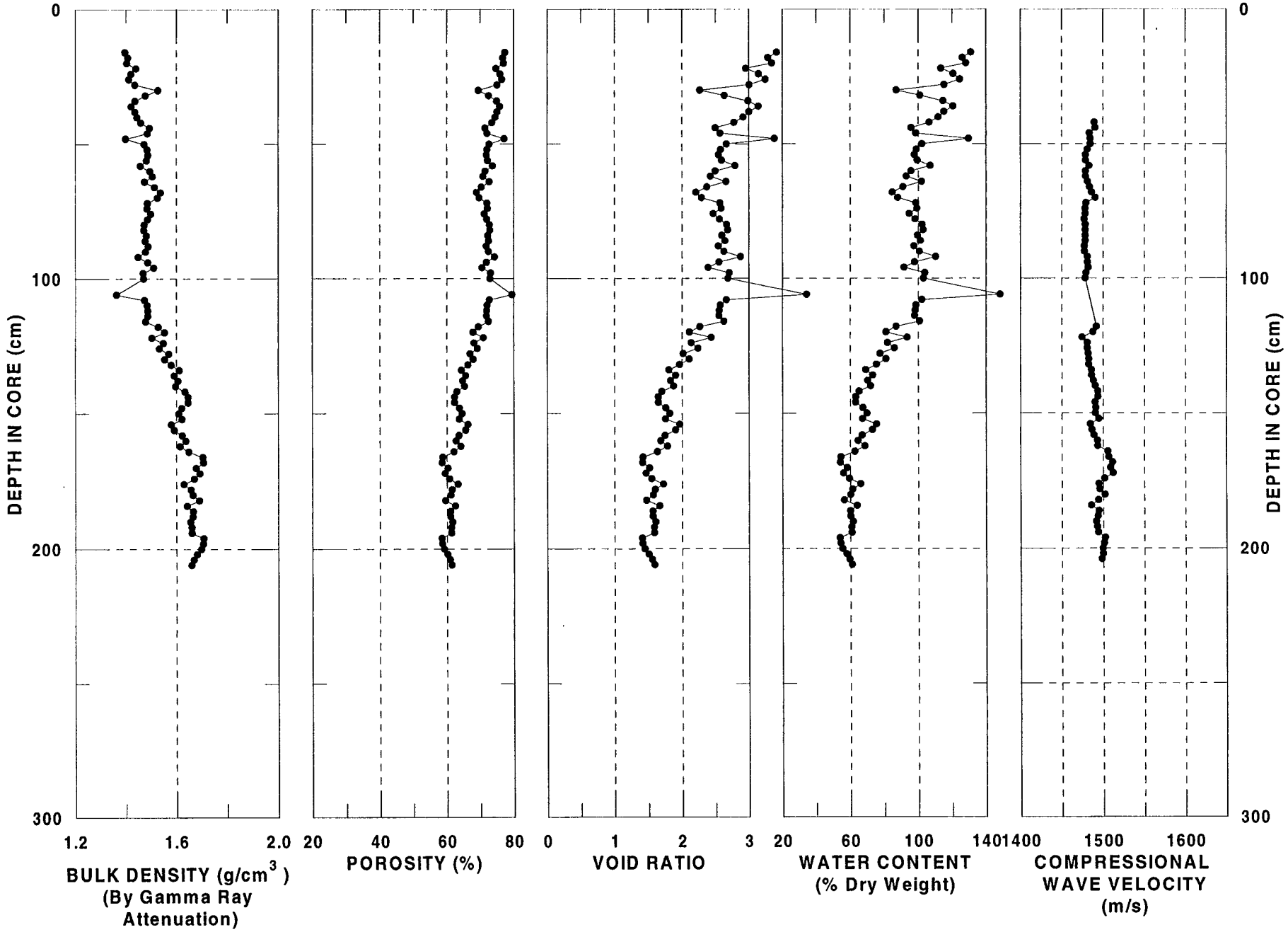
HM 12, TAMU GEOTEK LOGGER DATA



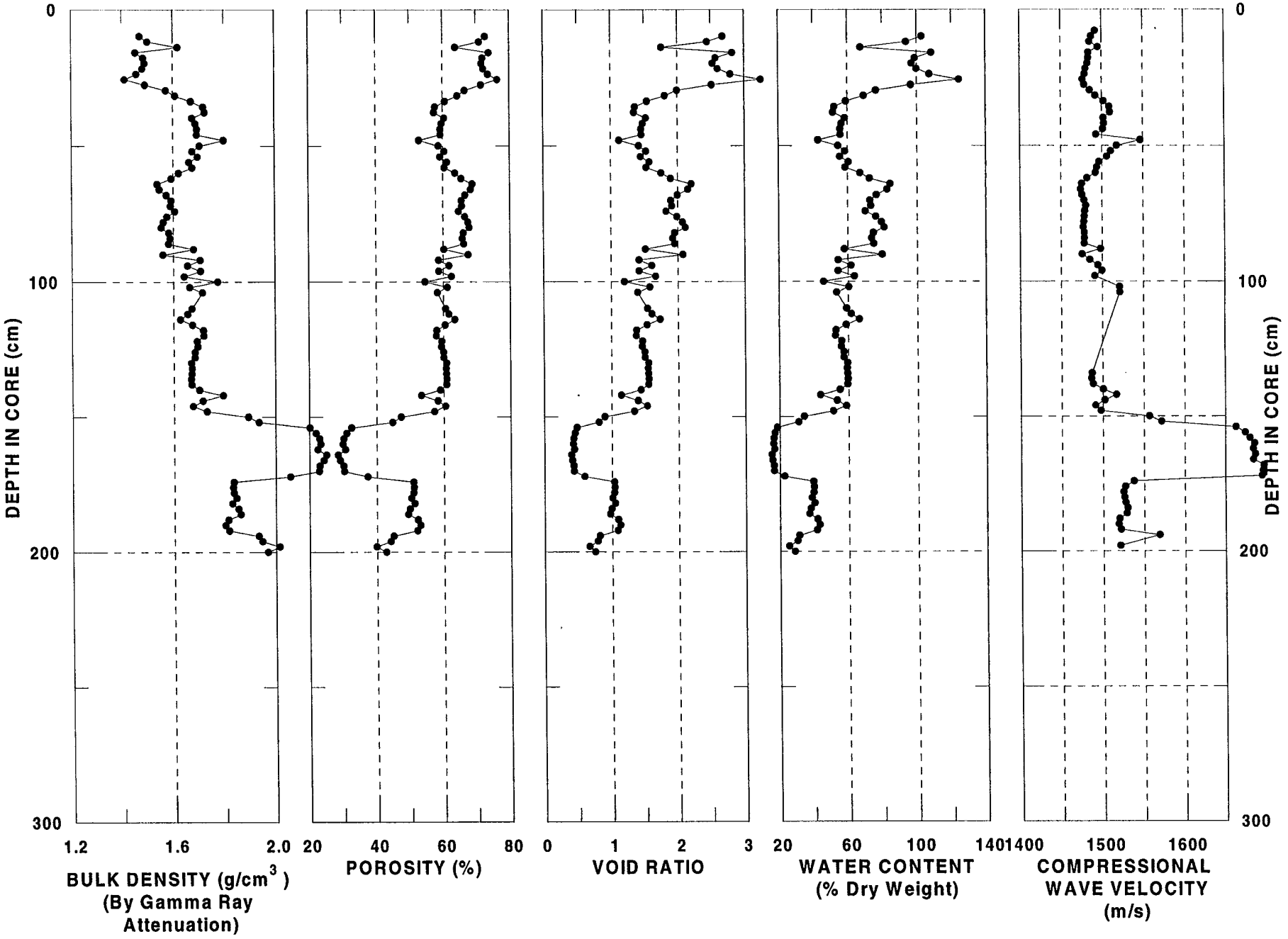
HM 16, TAMU GEOTEK LOGGER DATA



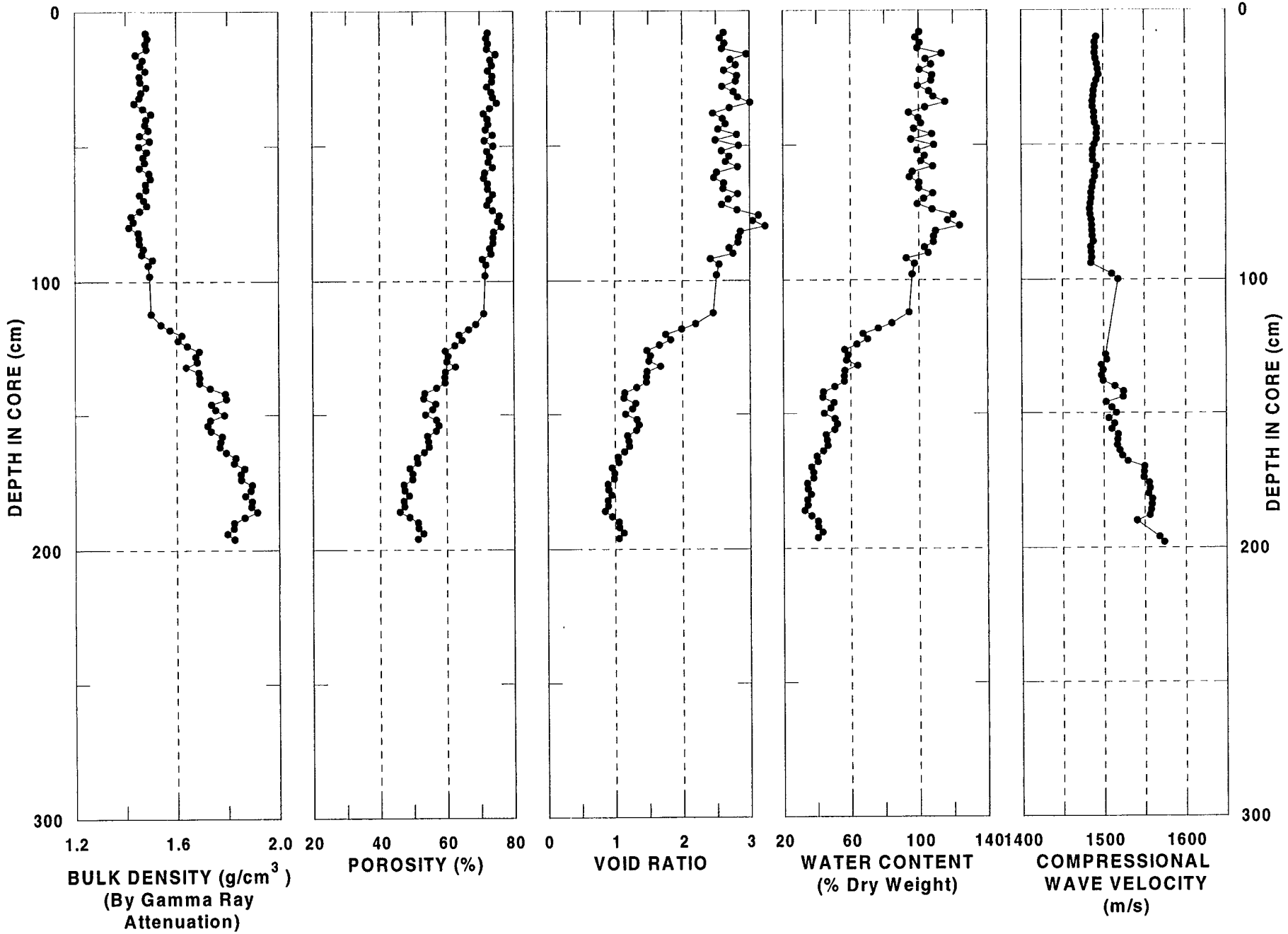
HM 17, TAMU GEOTEK LOGGER DATA



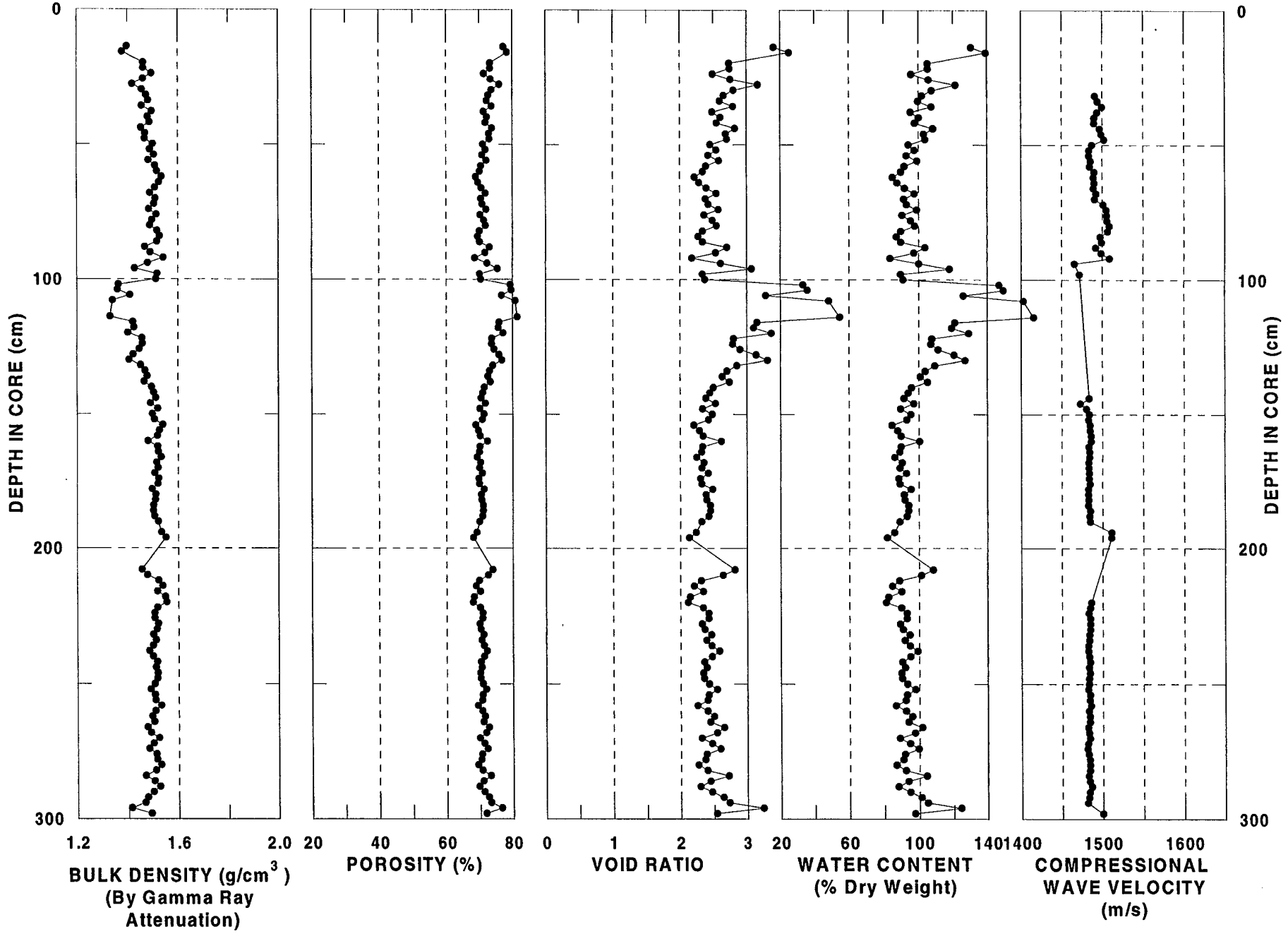
HM 19, TAMU GEOTEK LOGGER DATA



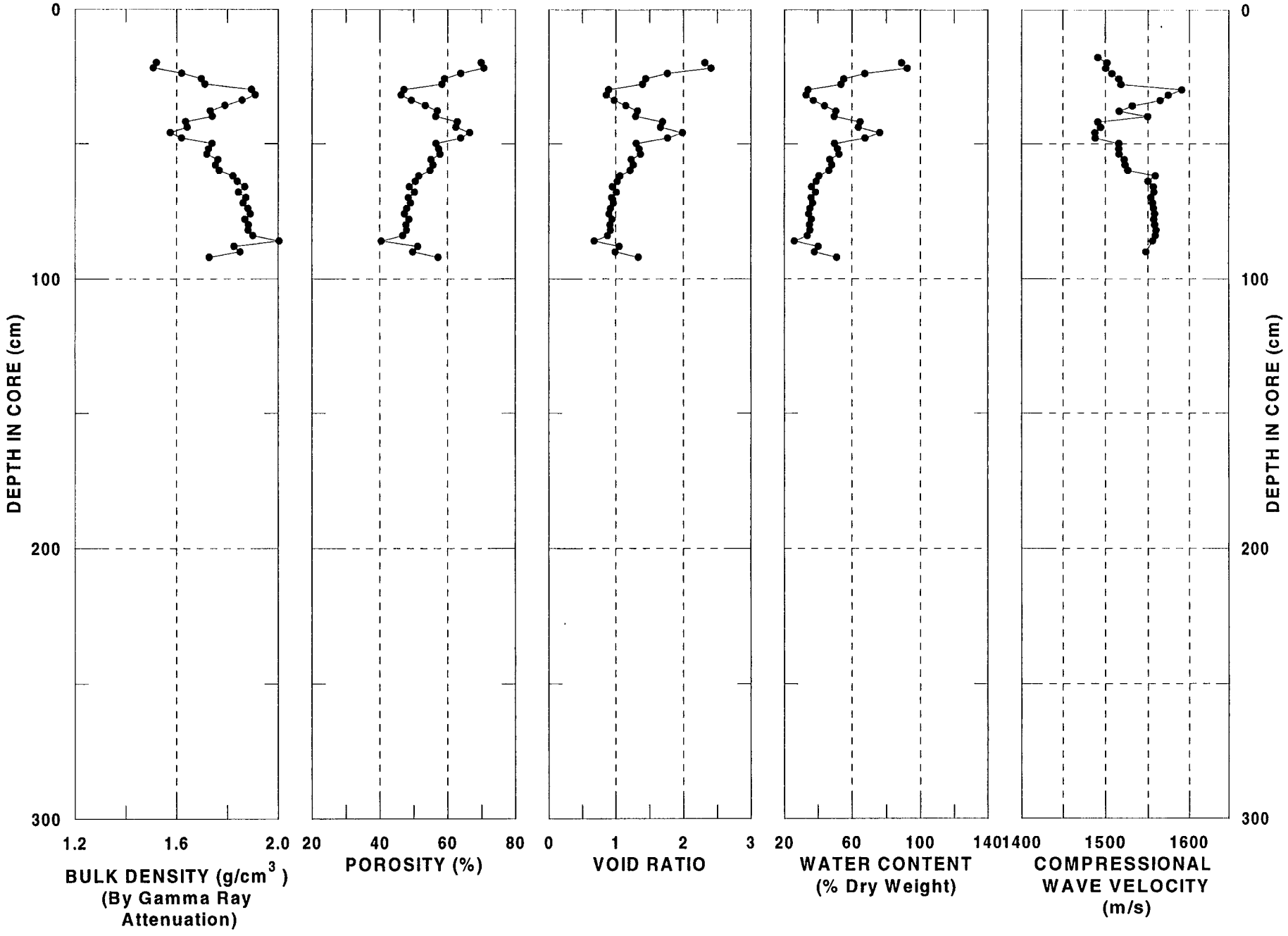
HM 29, TAMU GEOTEK LOGGER DATA



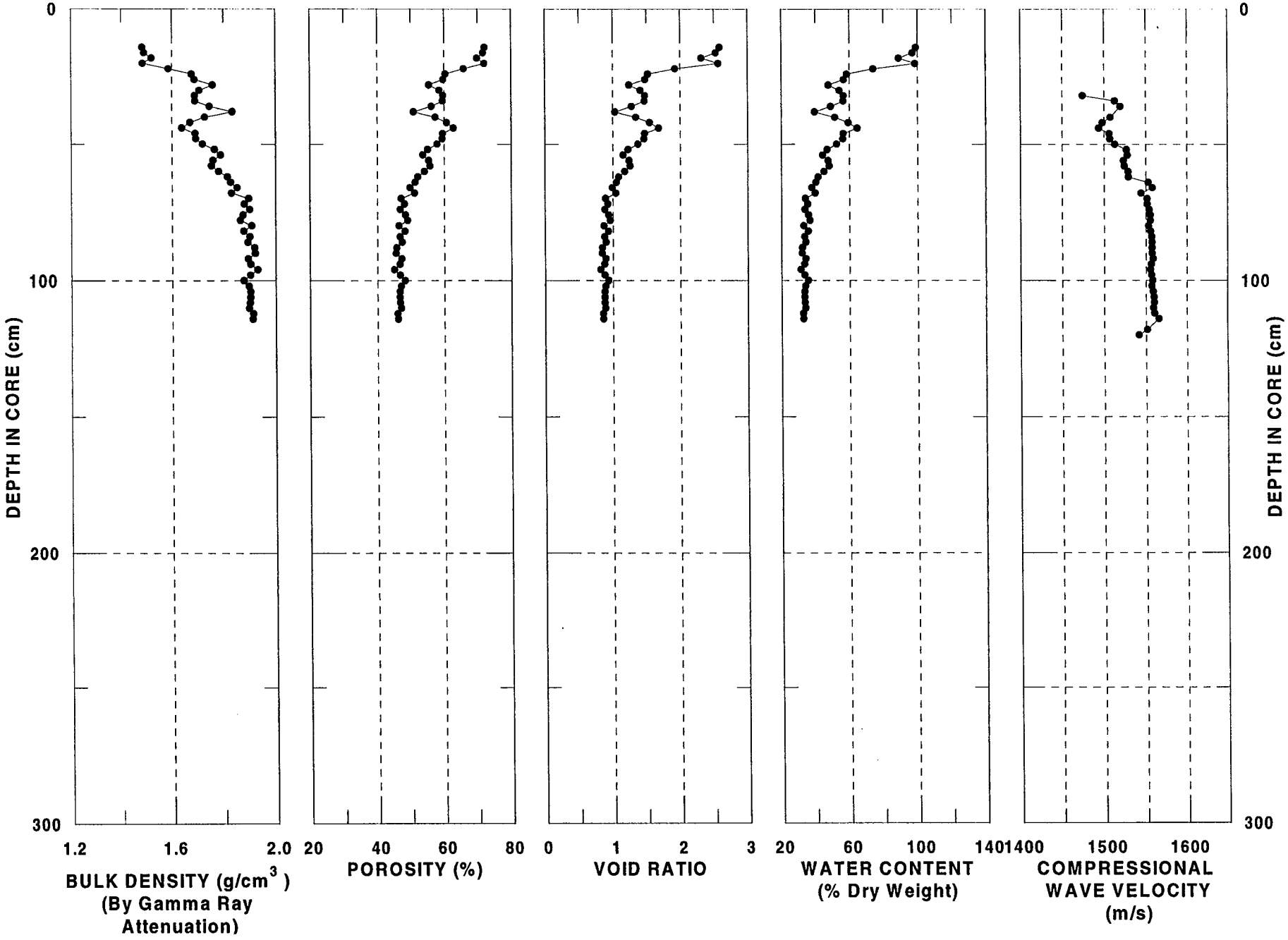
HM 31, TAMU GEOTEK LOGGER DATA



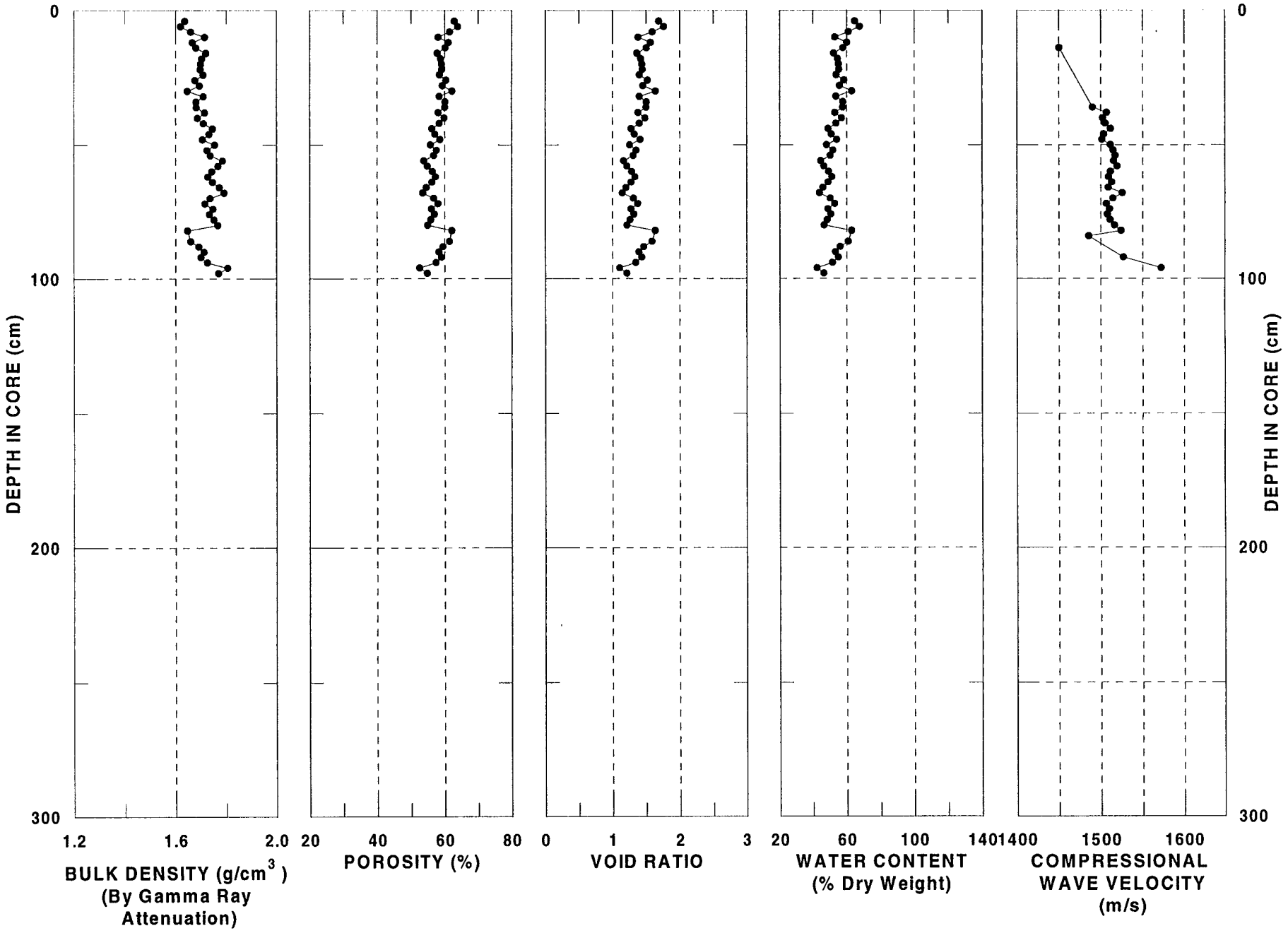
HM 32, TAMU GEOTEK LOGGER DATA



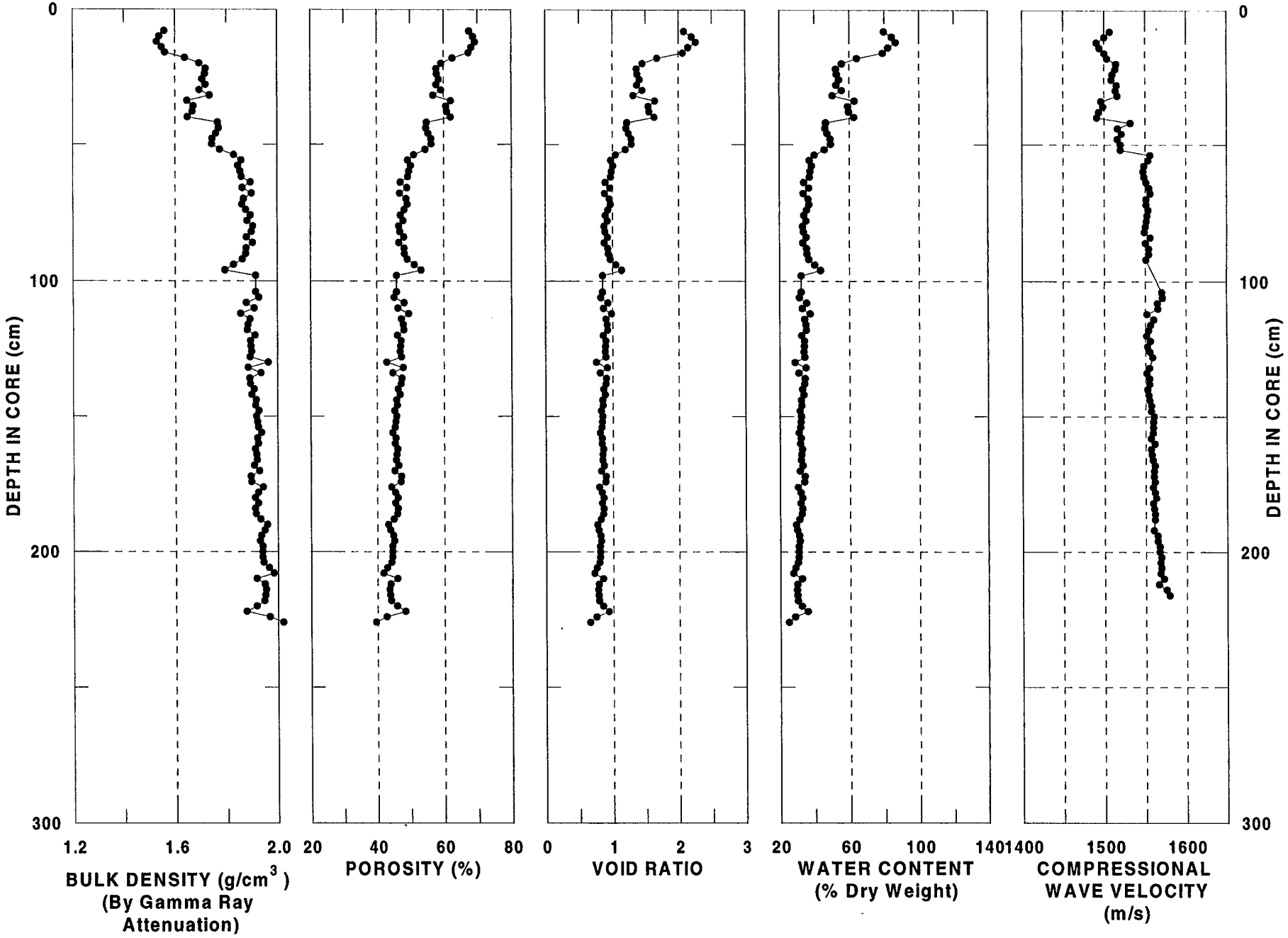
HM 34, TAMU GEOTEK LOGGER DATA



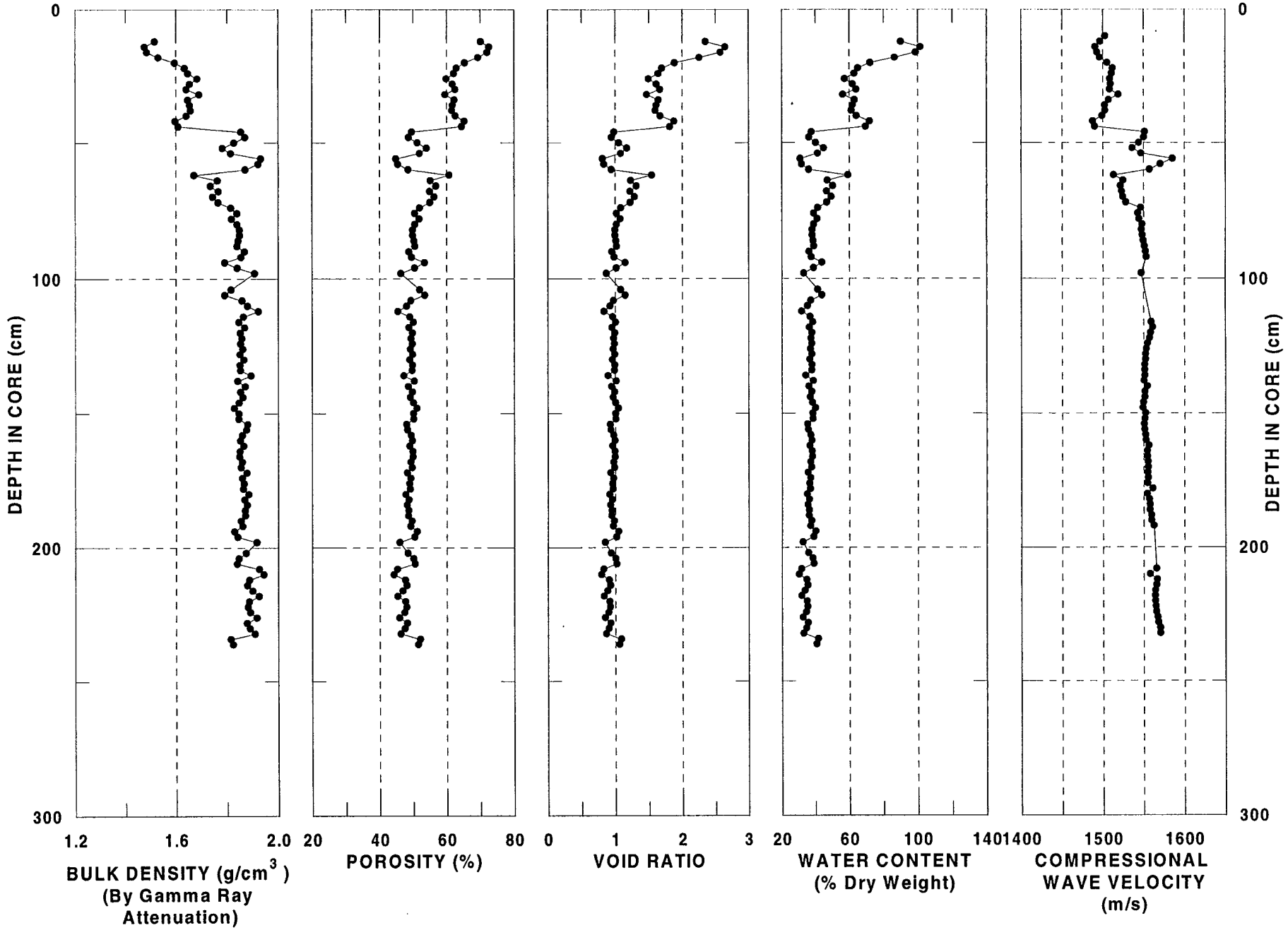
HM 36, TAMU GEOTEK LOGGER DATA



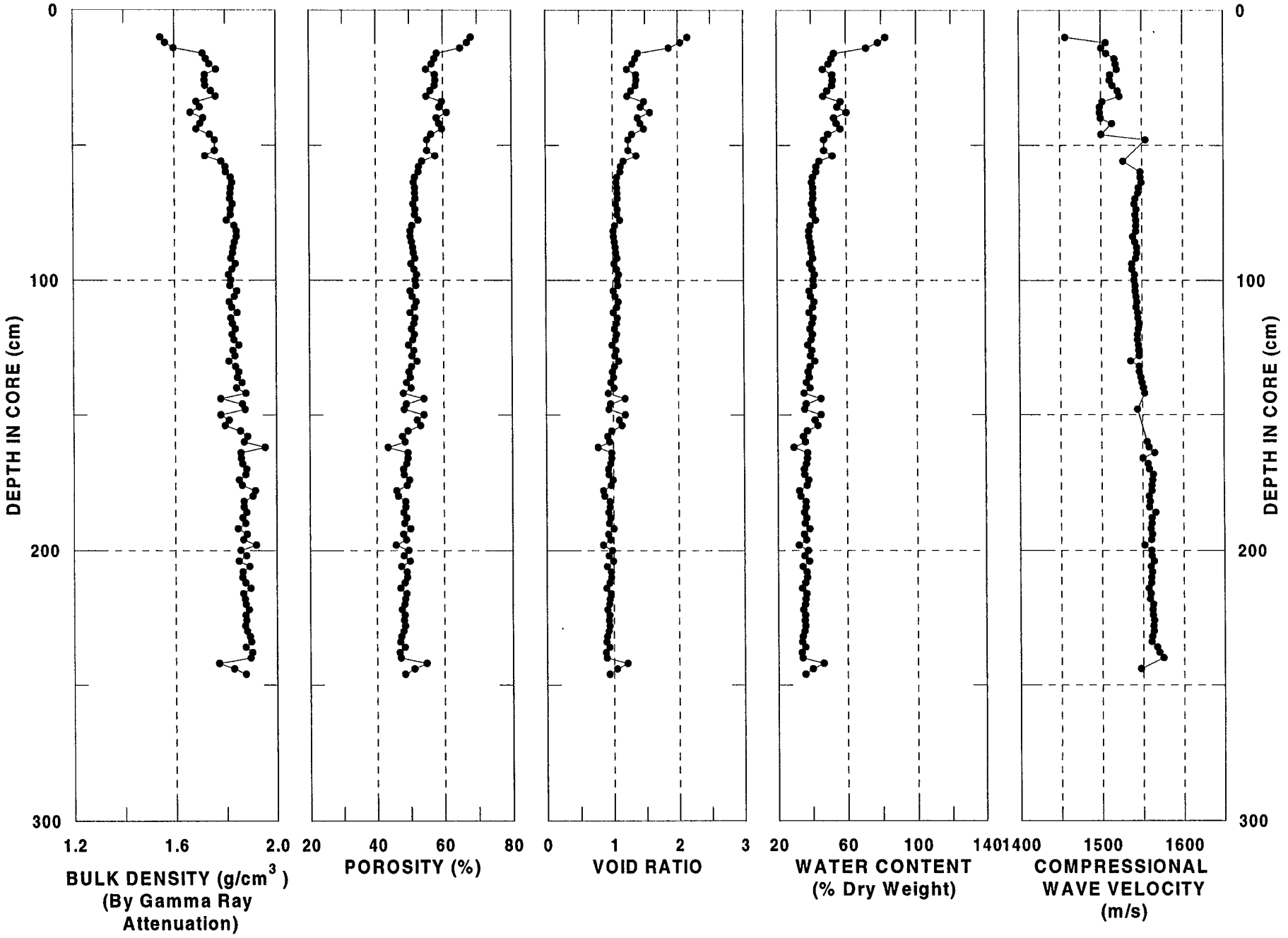
HM 37, TAMU GEOTEK LOGGER DATA



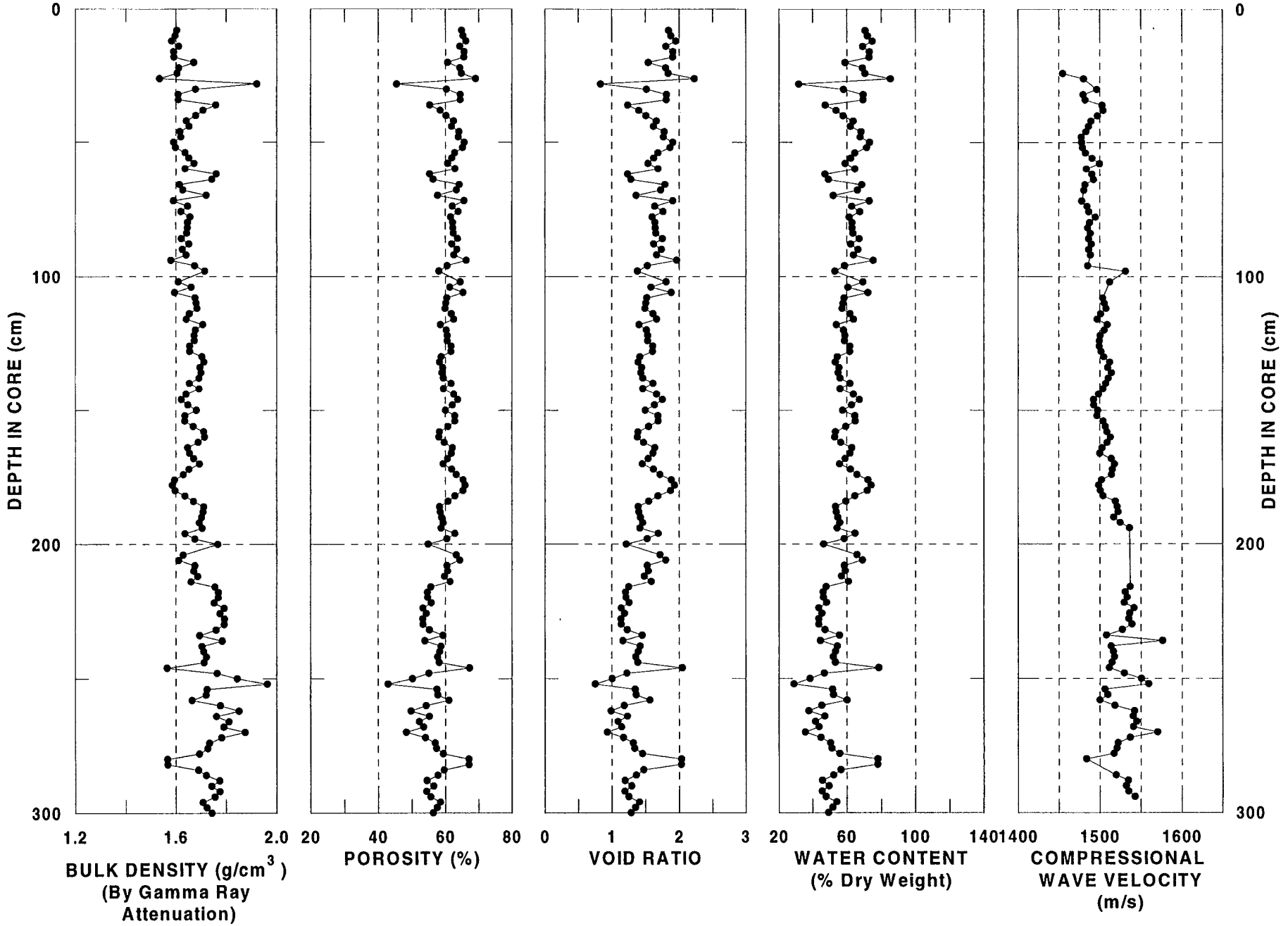
HM 38, TAMU GEOTEK LOGGER DATA



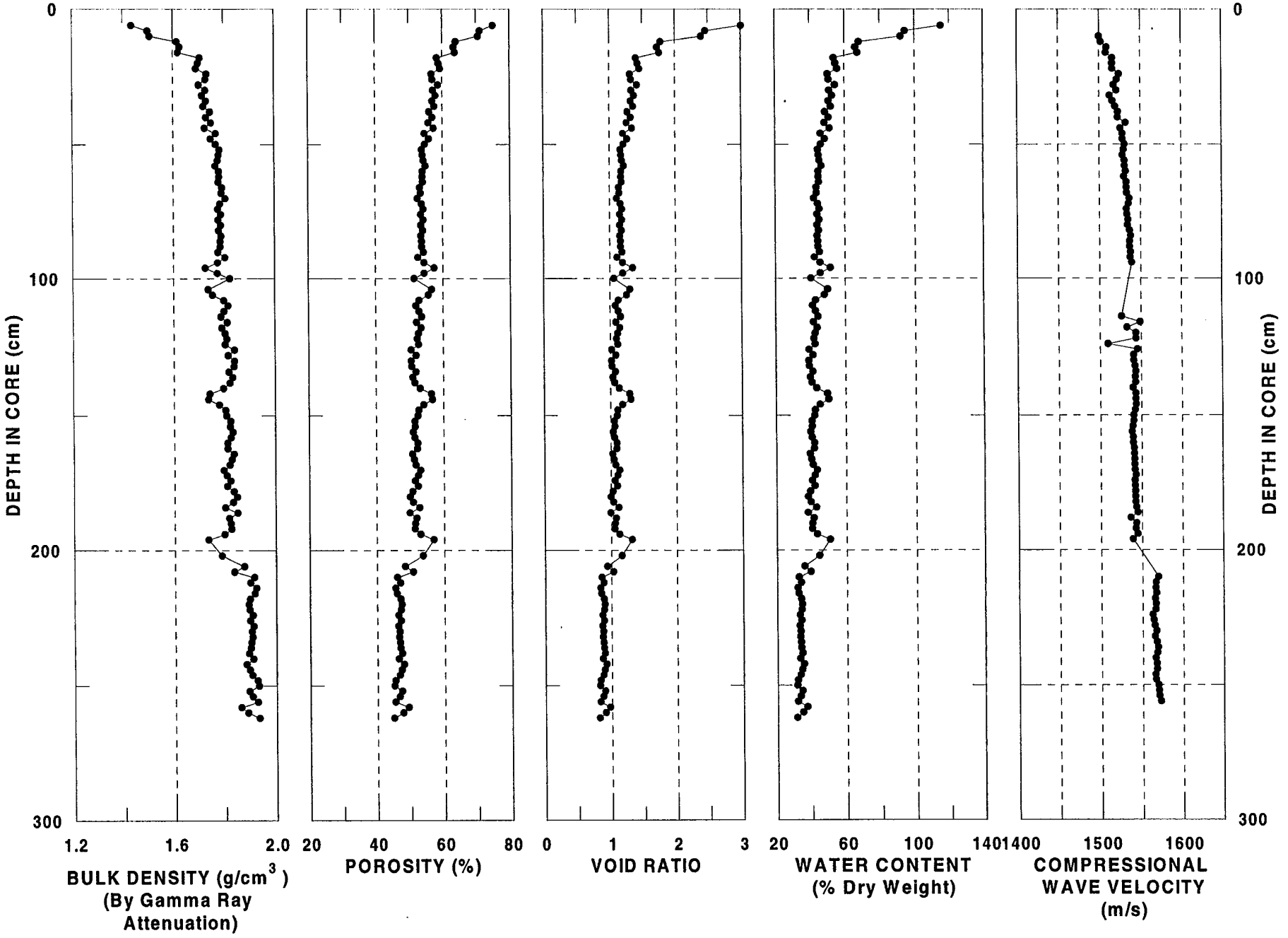
HM 40, TAMU GEOTEK LOGGER DATA



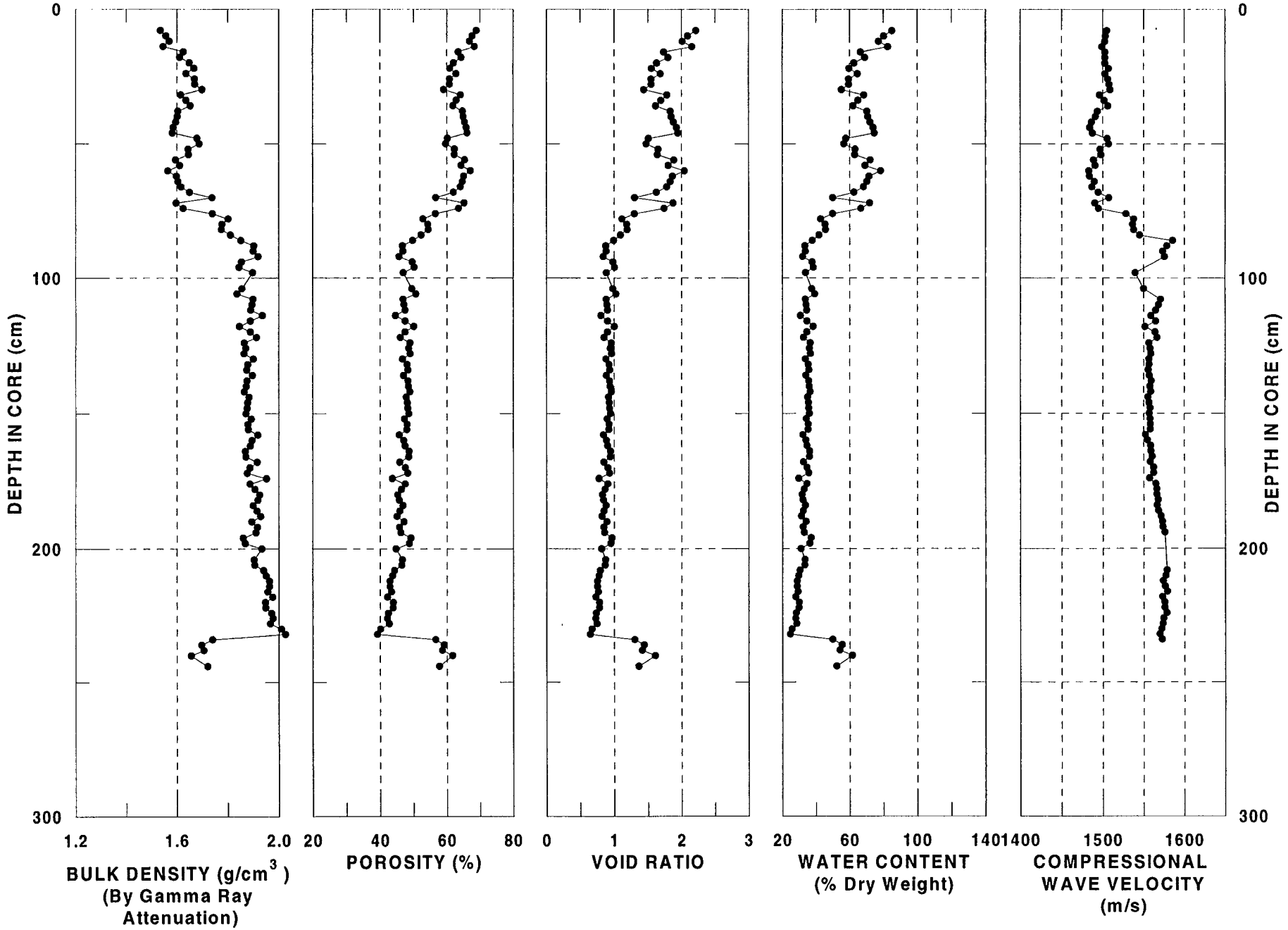
HM 41, TAMU GEOTEK LOGGER DATA



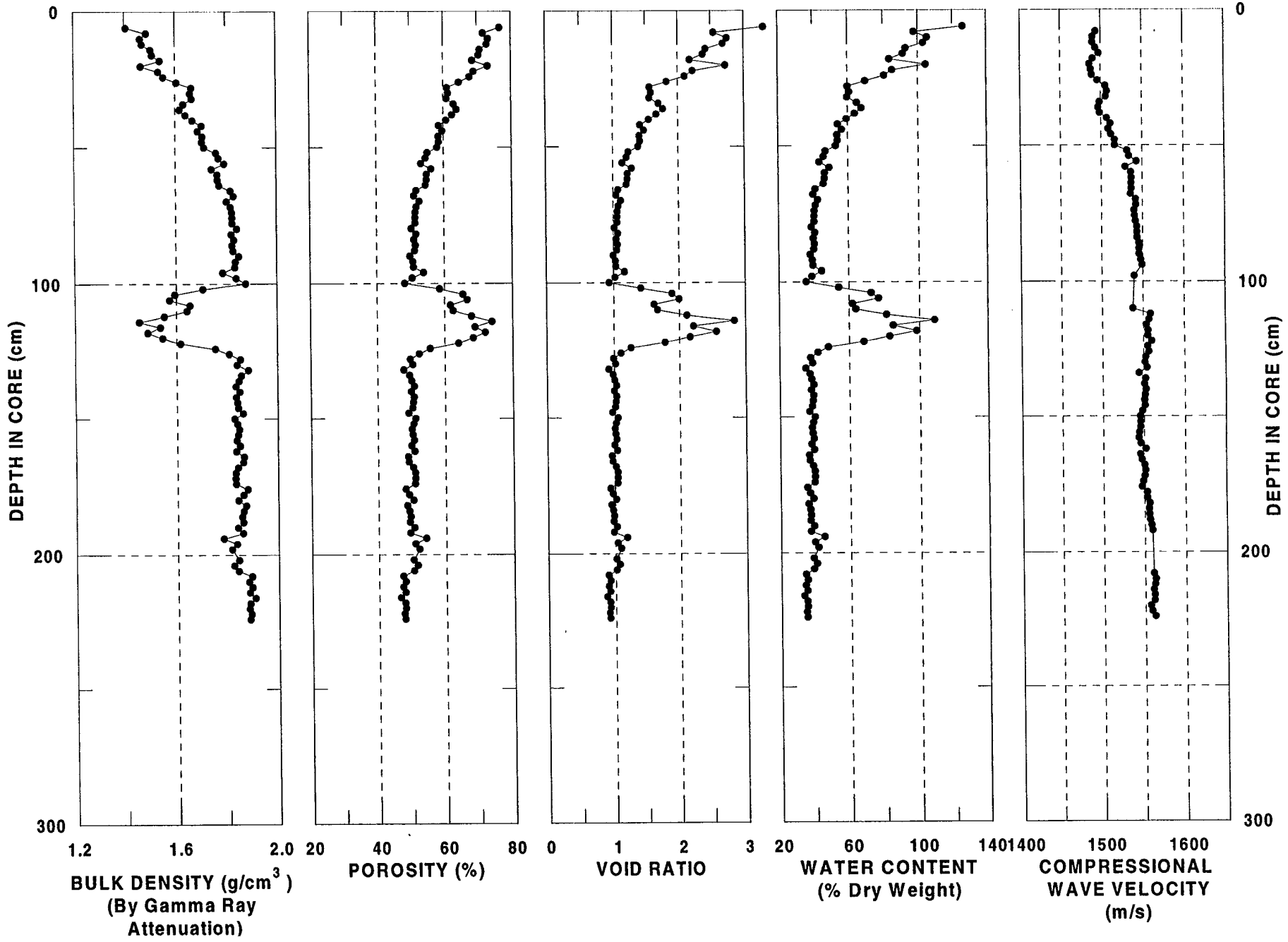
HM 43, TAMU GEOTEK LOGGER DATA



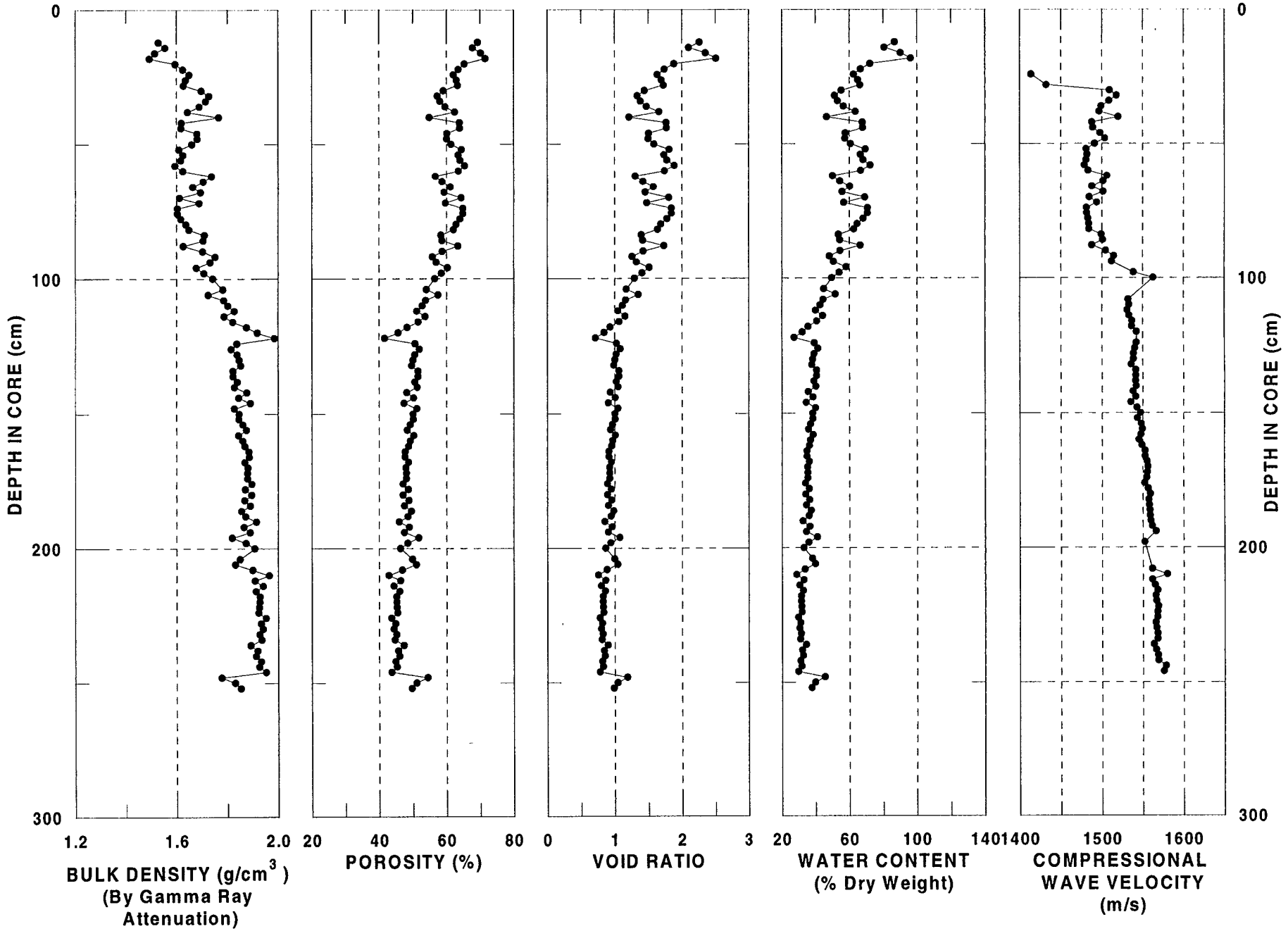
HM 44, TAMU GEOTEK LOGGER DATA



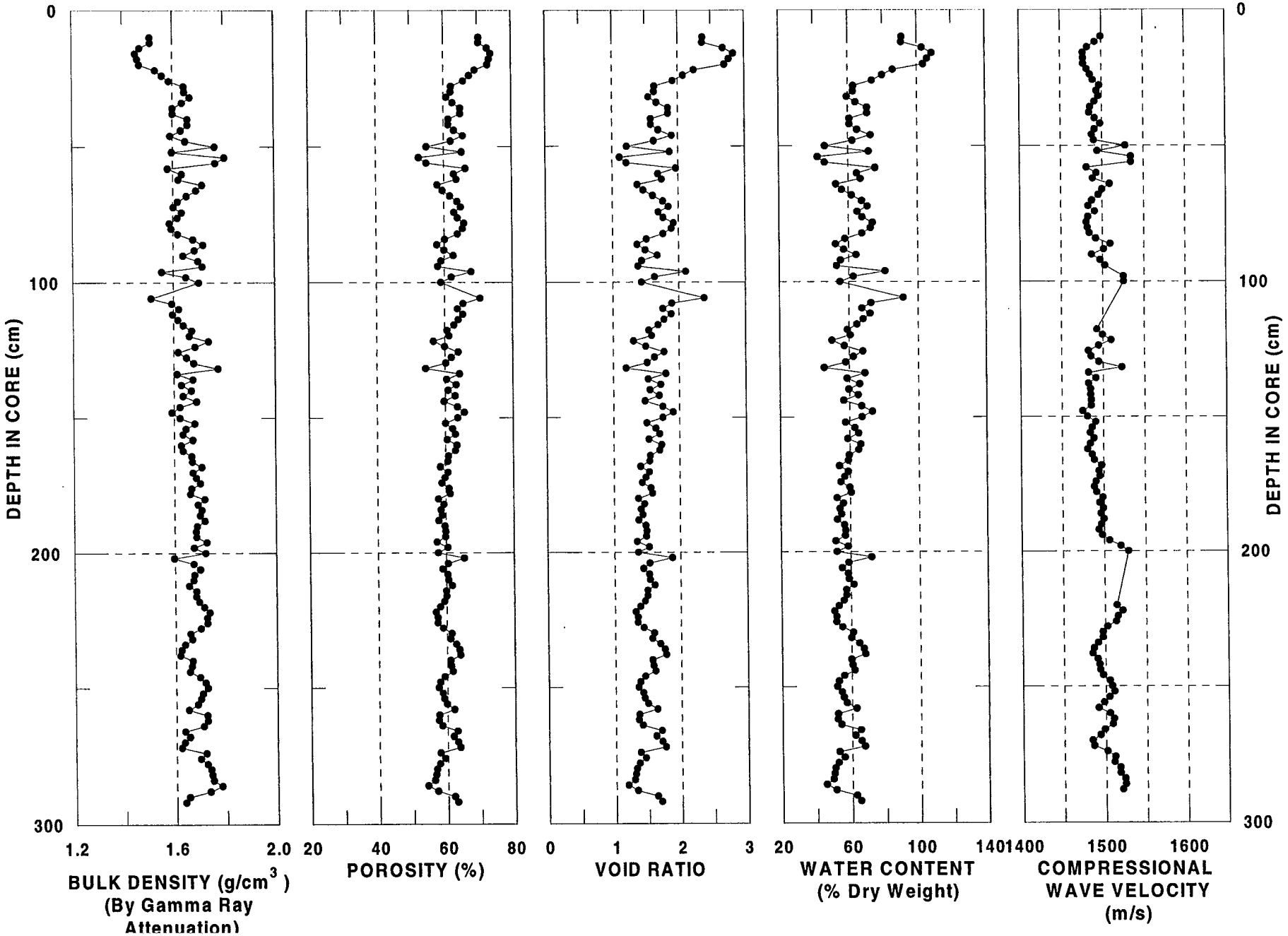
HM 46, TAMU GEOTEK LOGGER DATA



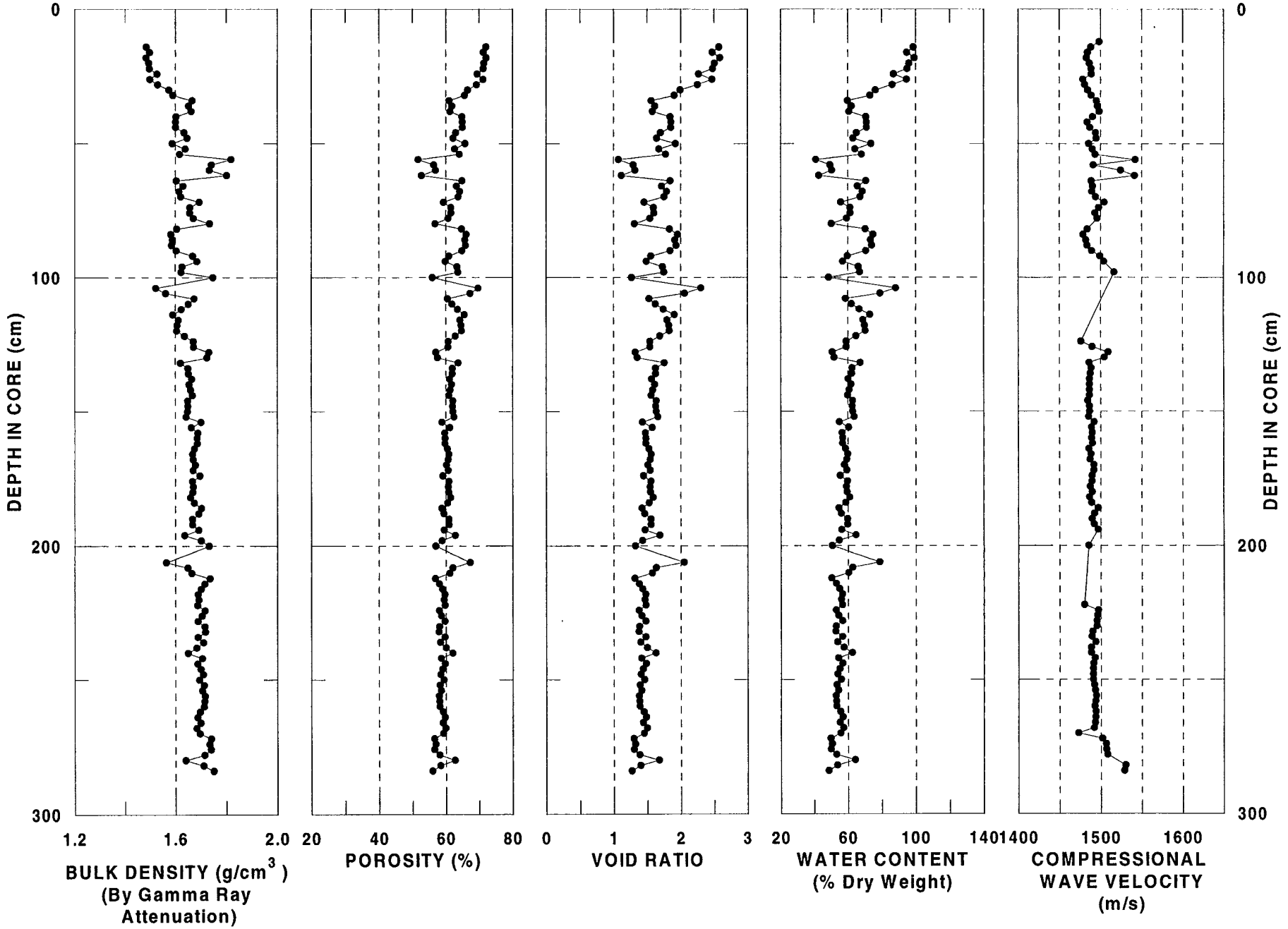
HM 48, TAMU GEOTEK LOGGER DATA



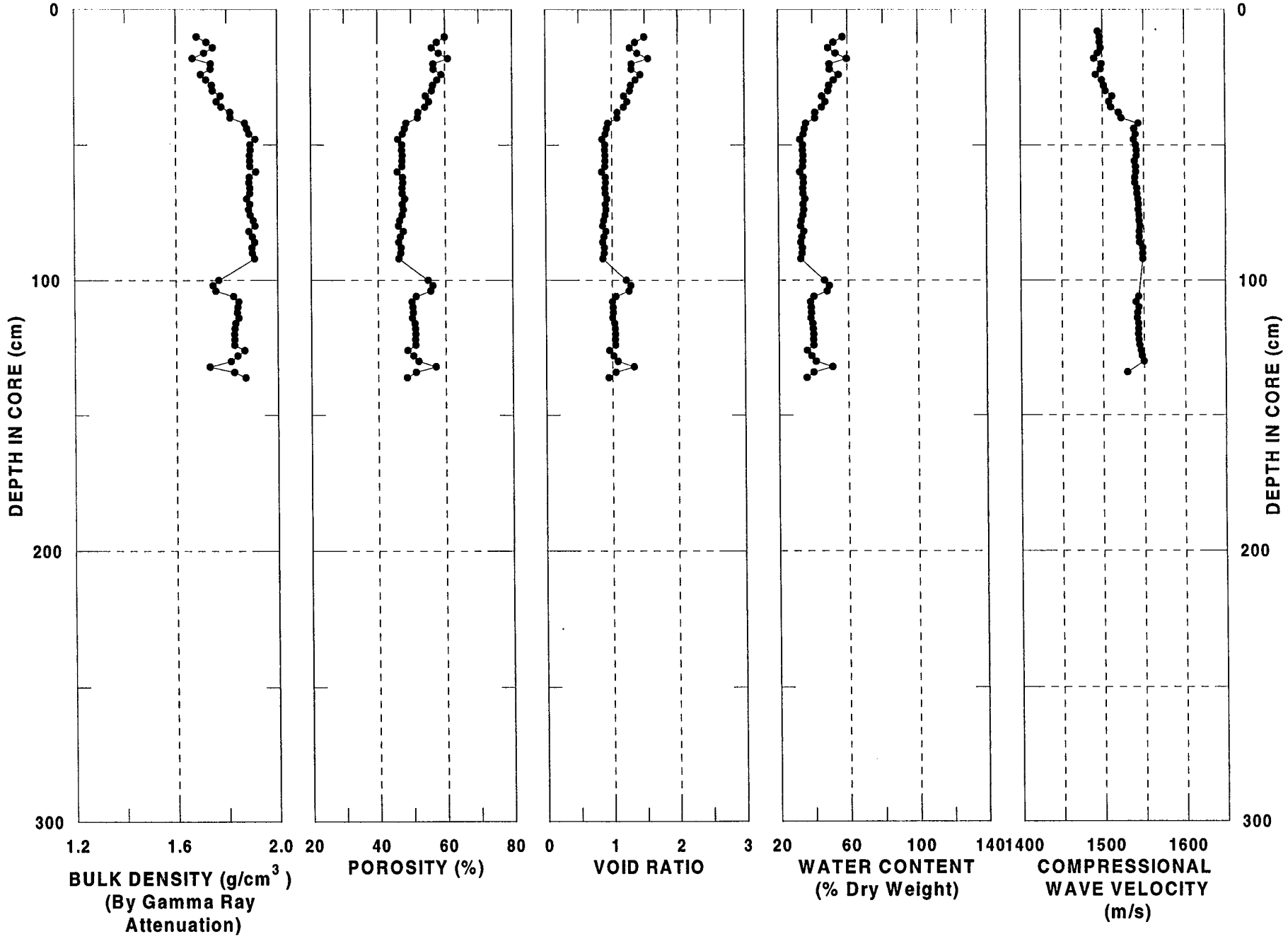
HM 49, TAMU GEOTEK LOGGER DATA



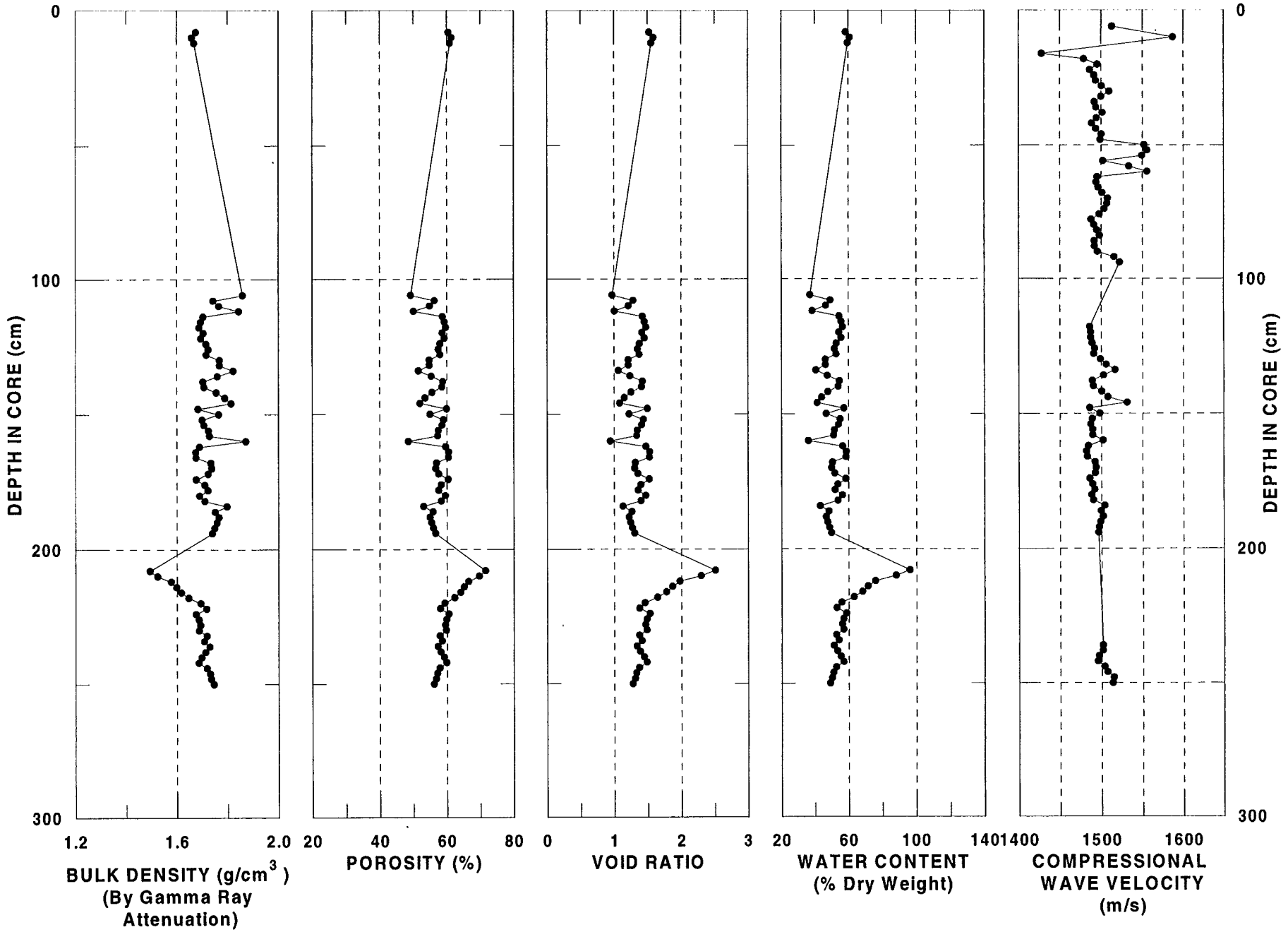
HM 50, TAMU GEOTEK LOGGER DATA



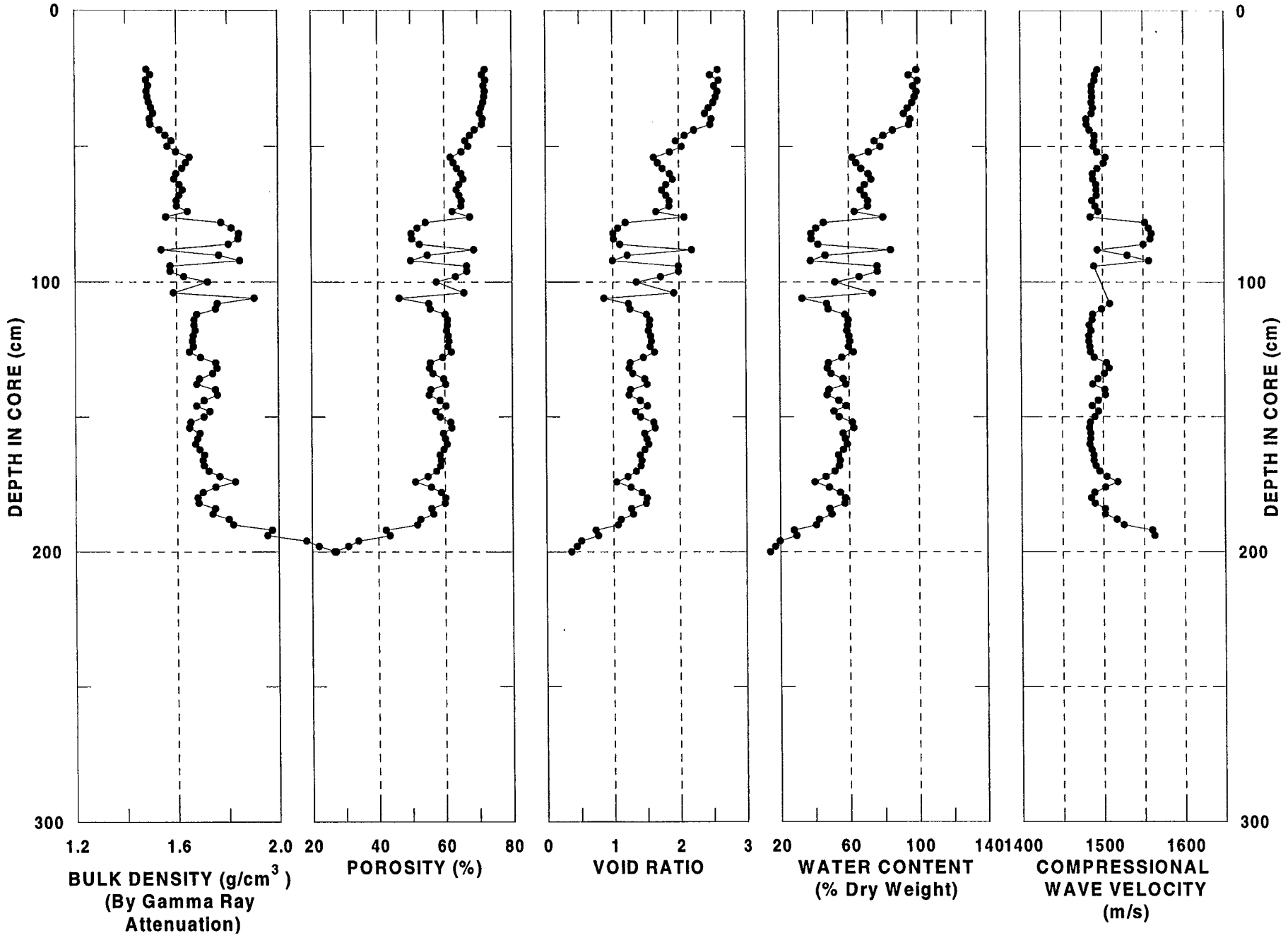
HM 51, TAMU GEOTEK LOGGER DATA



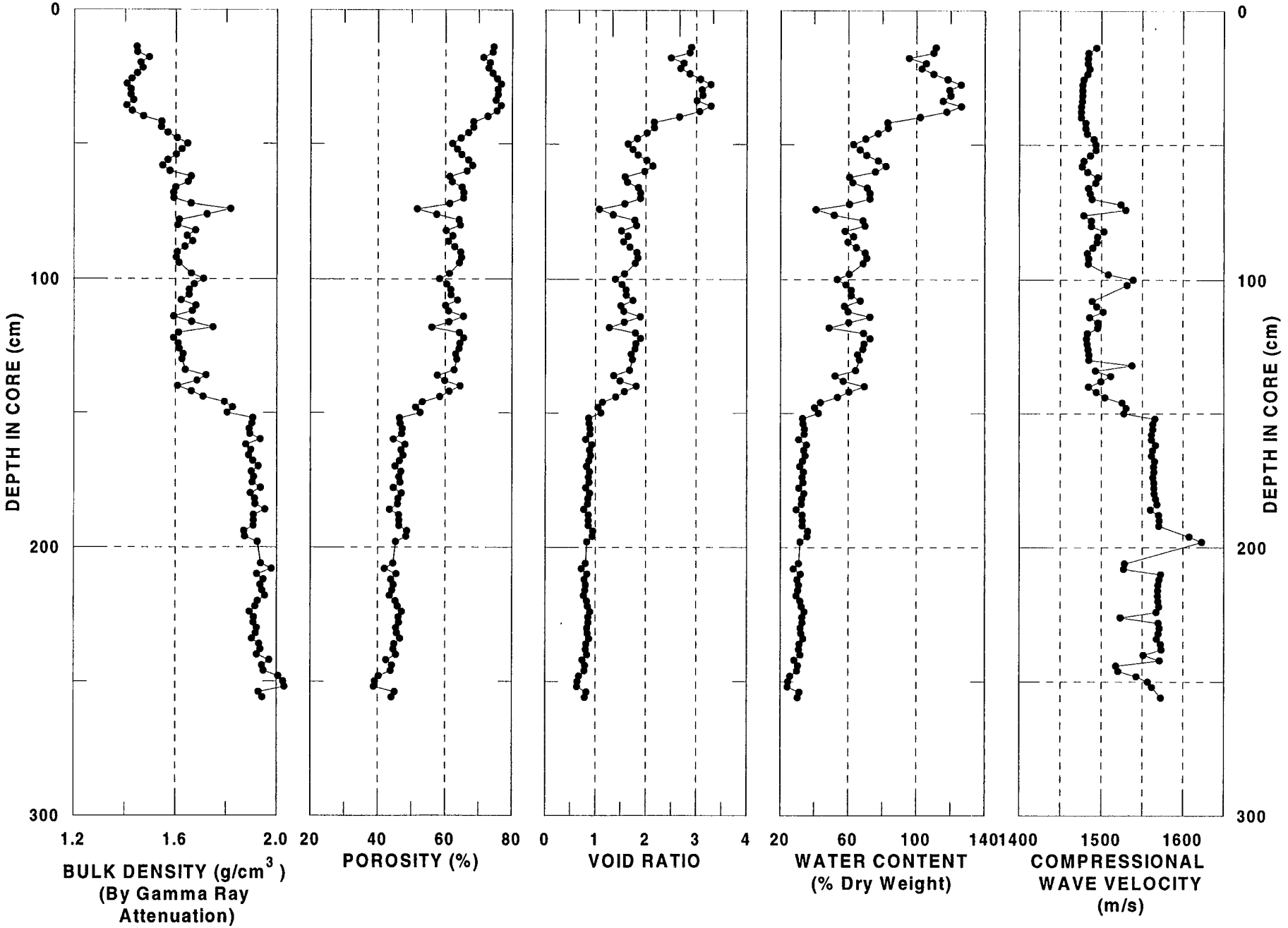
HM 52, TAMU GEOTEK LOGGER DATA



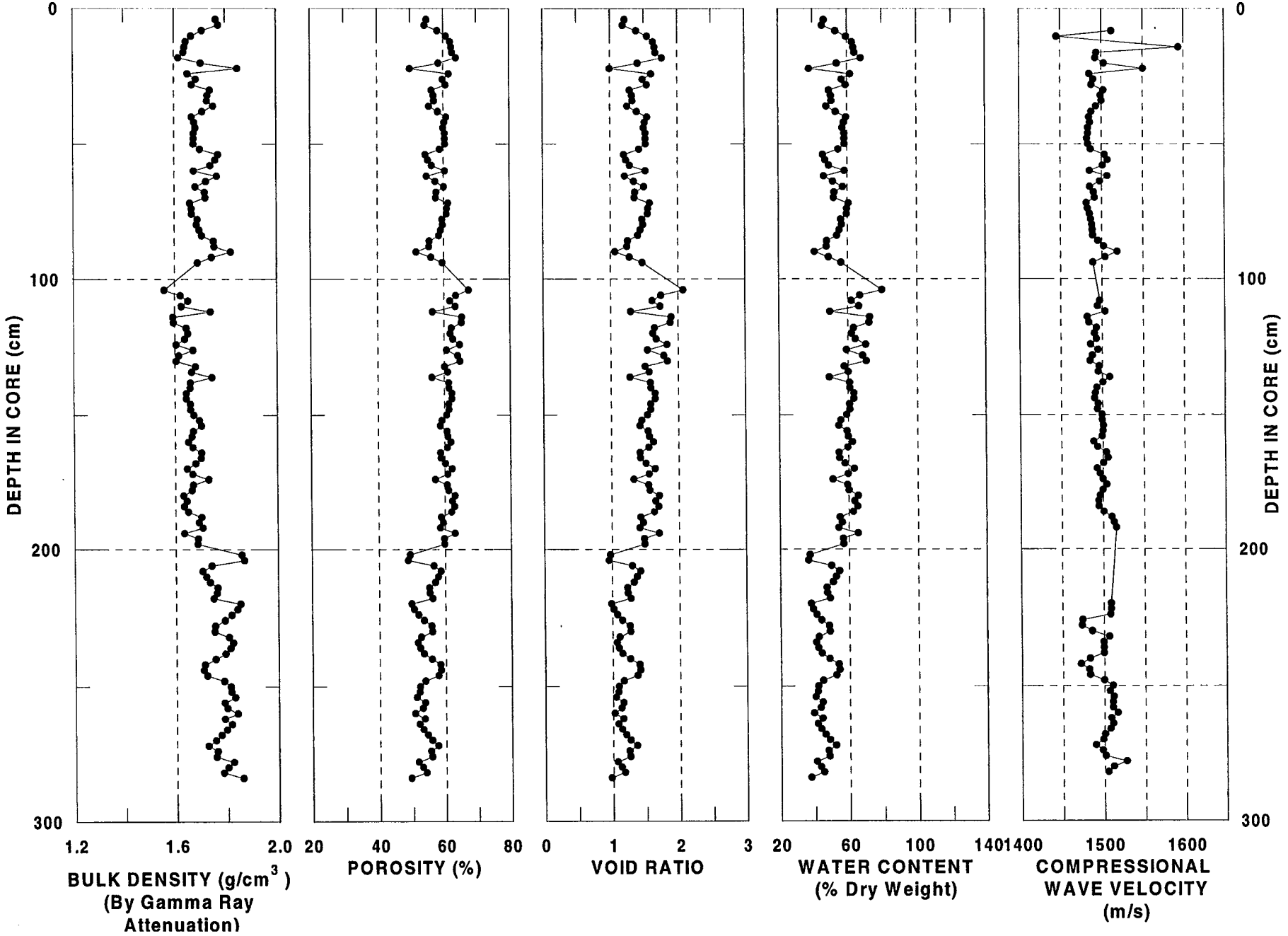
HM 53, TAMU GEOTEK LOGGER DATA



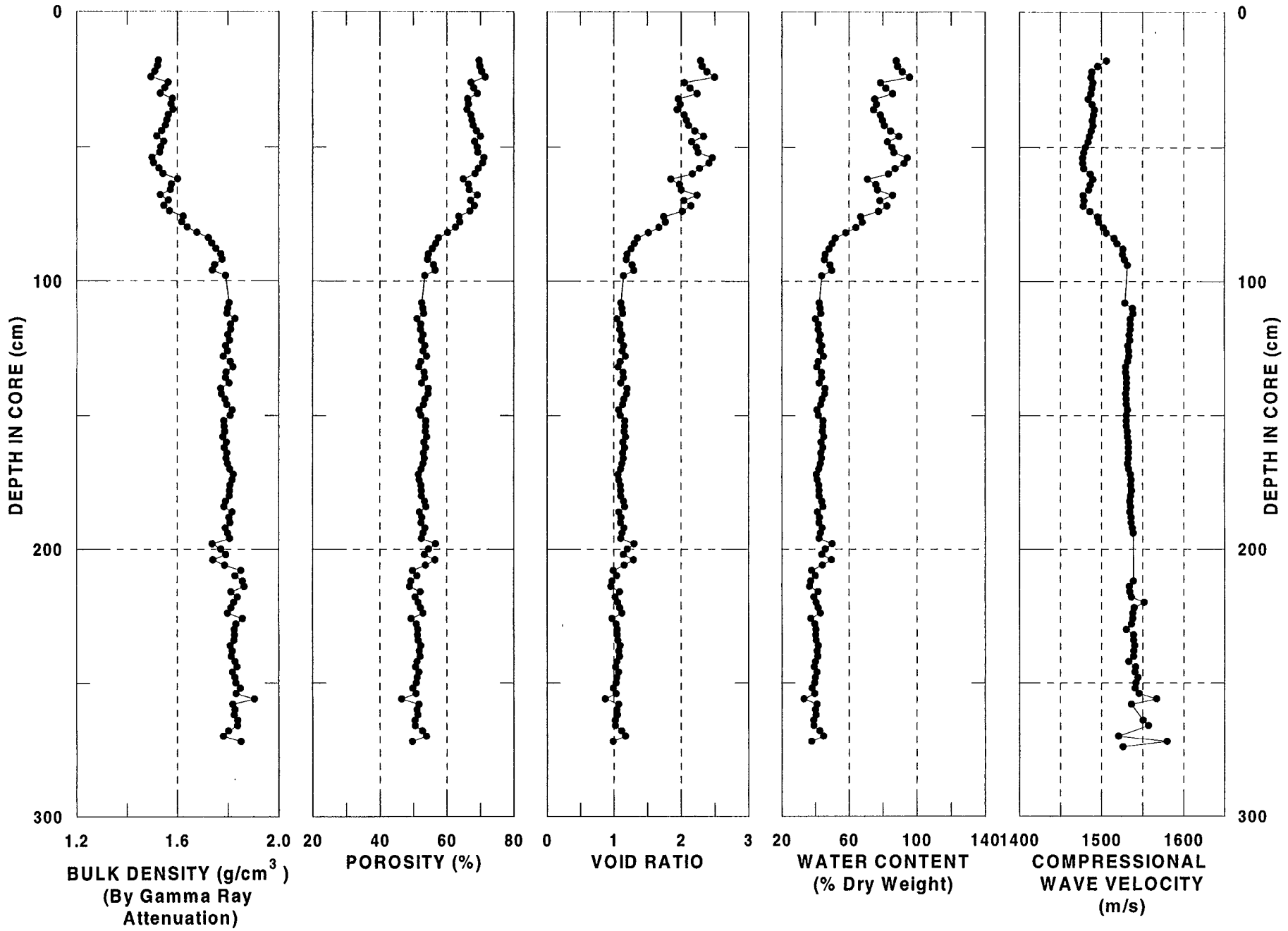
HM 54, TAMU GEOTEK LOGGER DATA



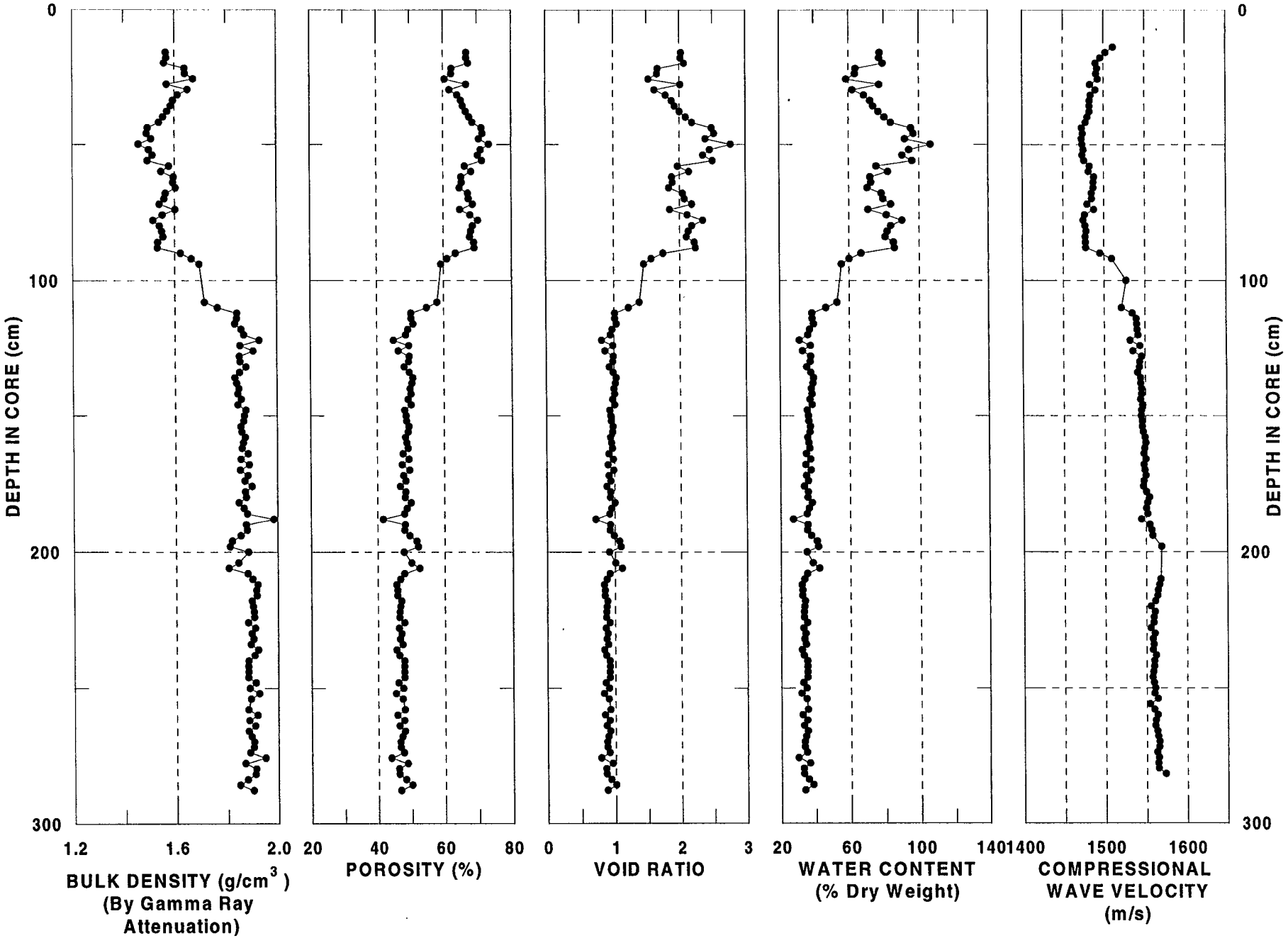
HM 56, TAMU GEOTEK LOGGER DATA



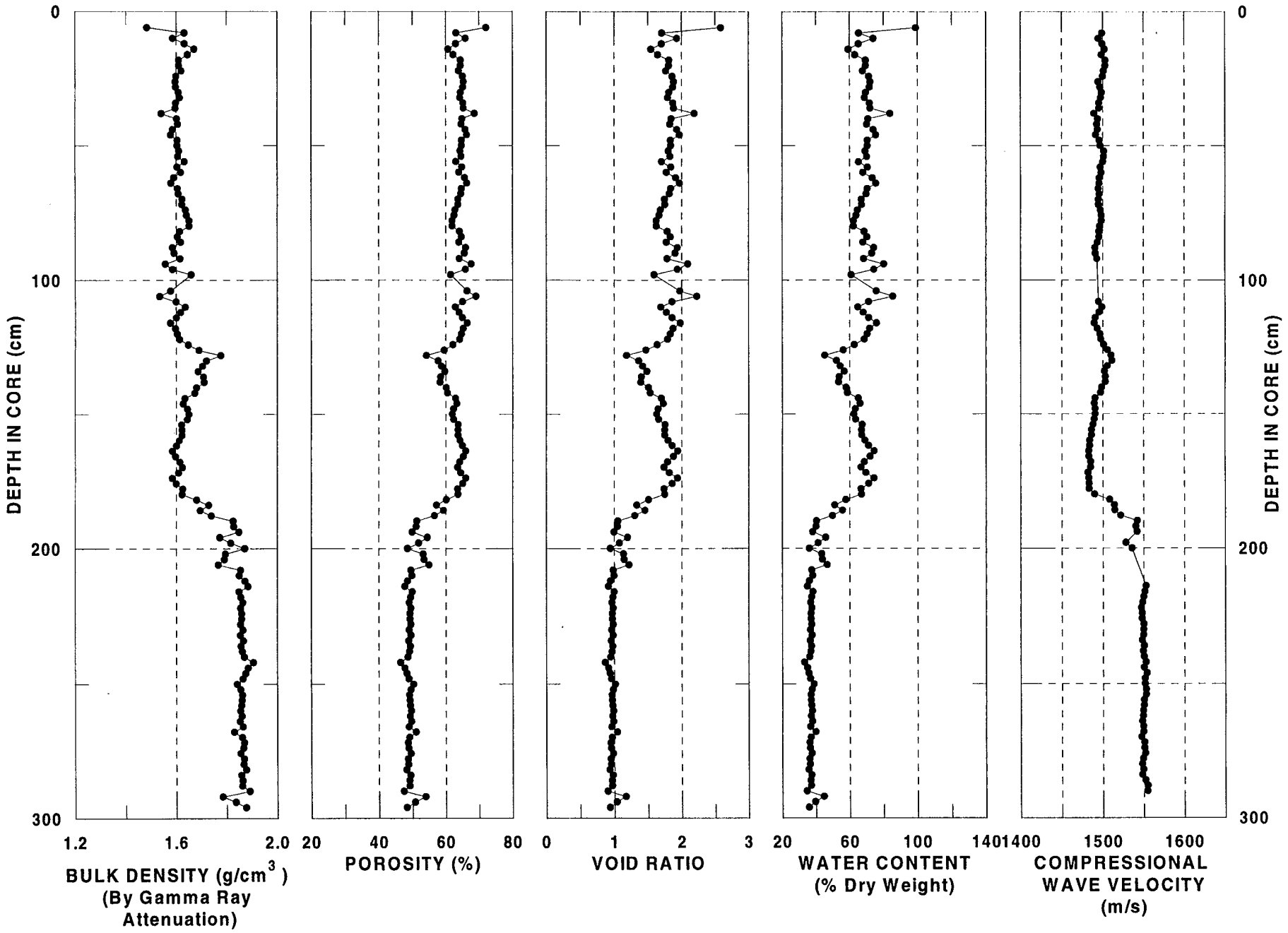
HM 58, TAMU GEOTEK LOGGER DATA



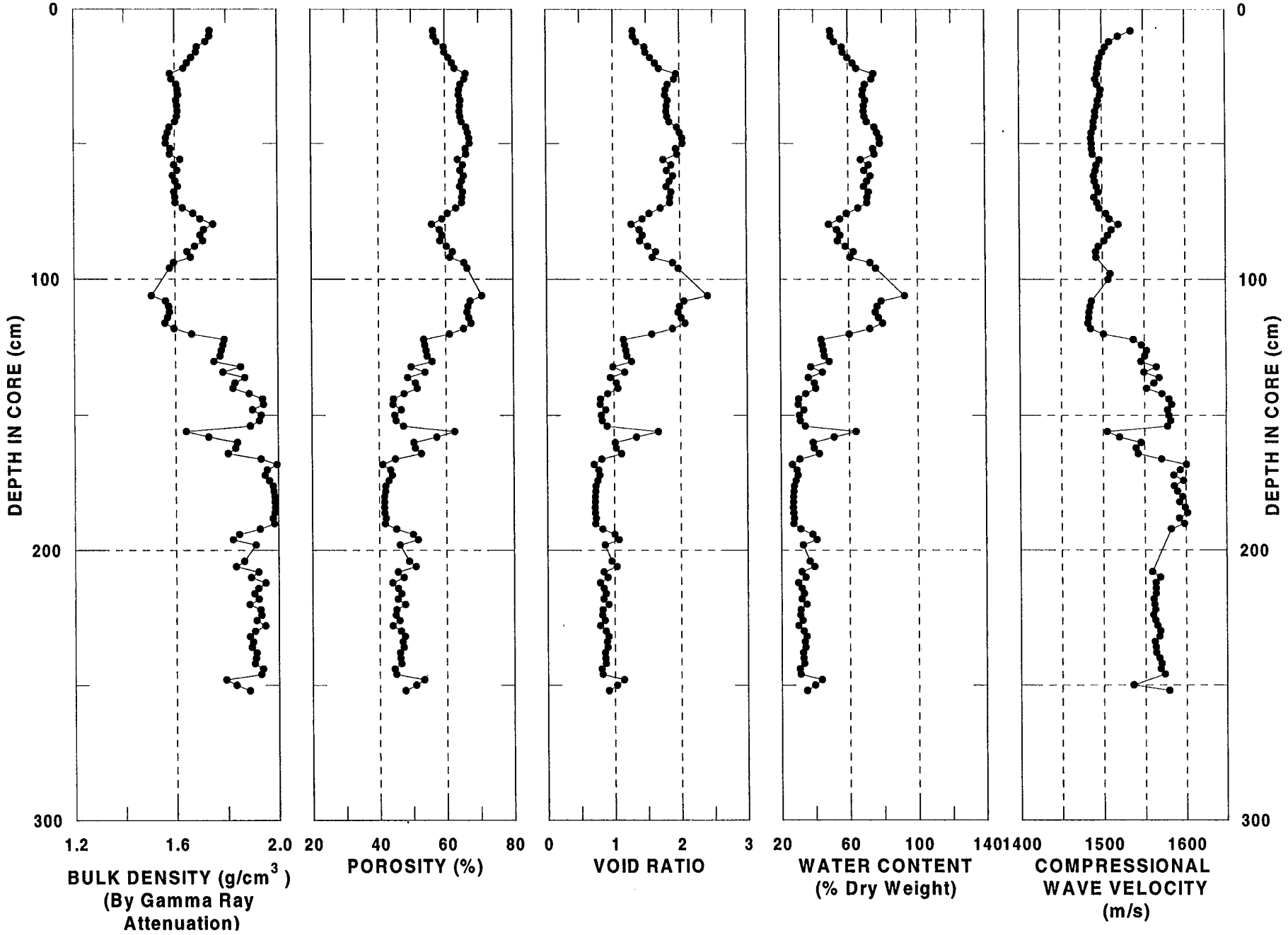
HM 59, TAMU GEOTEK LOGGER DATA



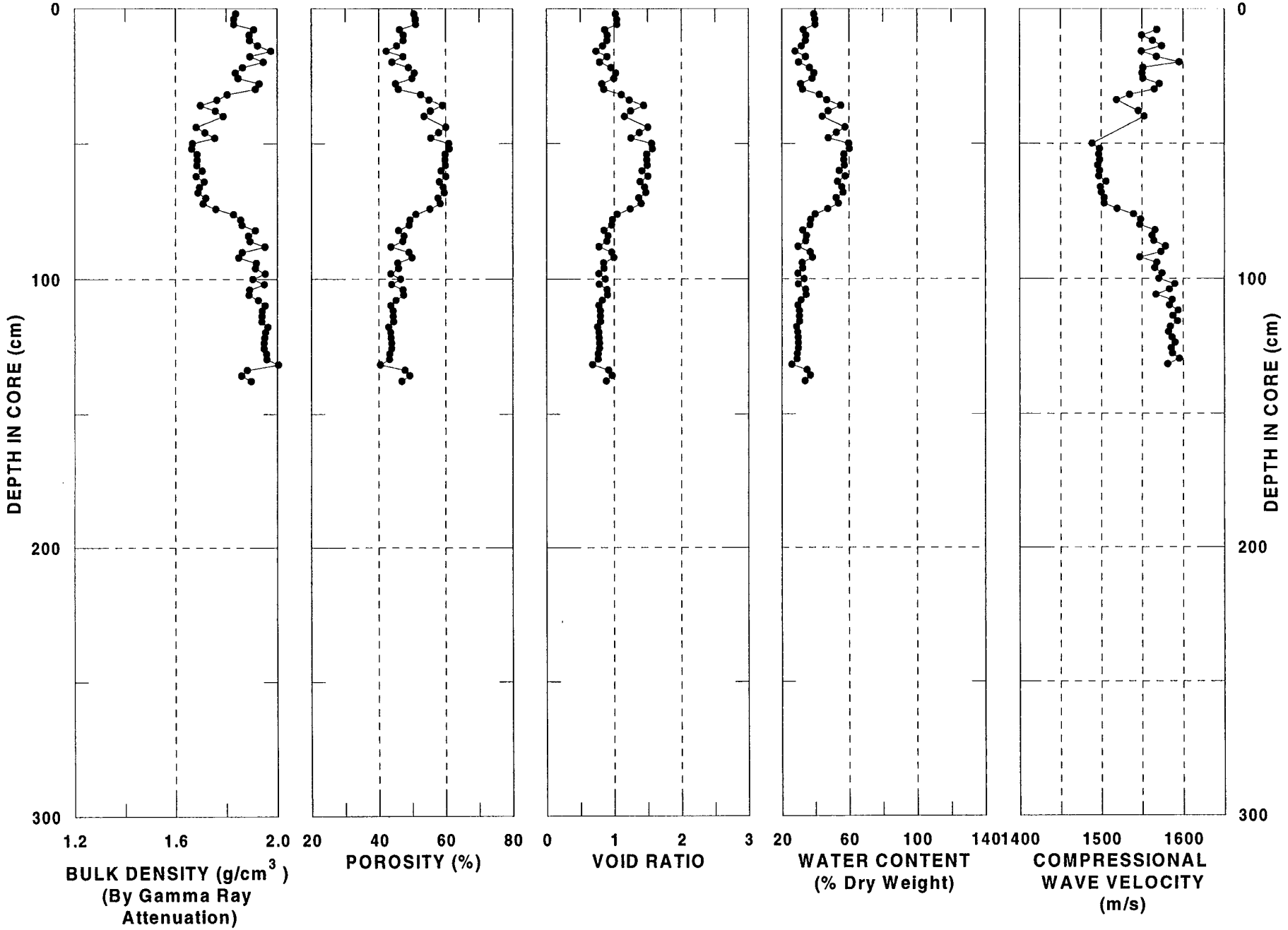
HM 60, TAMU GEOTEK LOGGER DATA



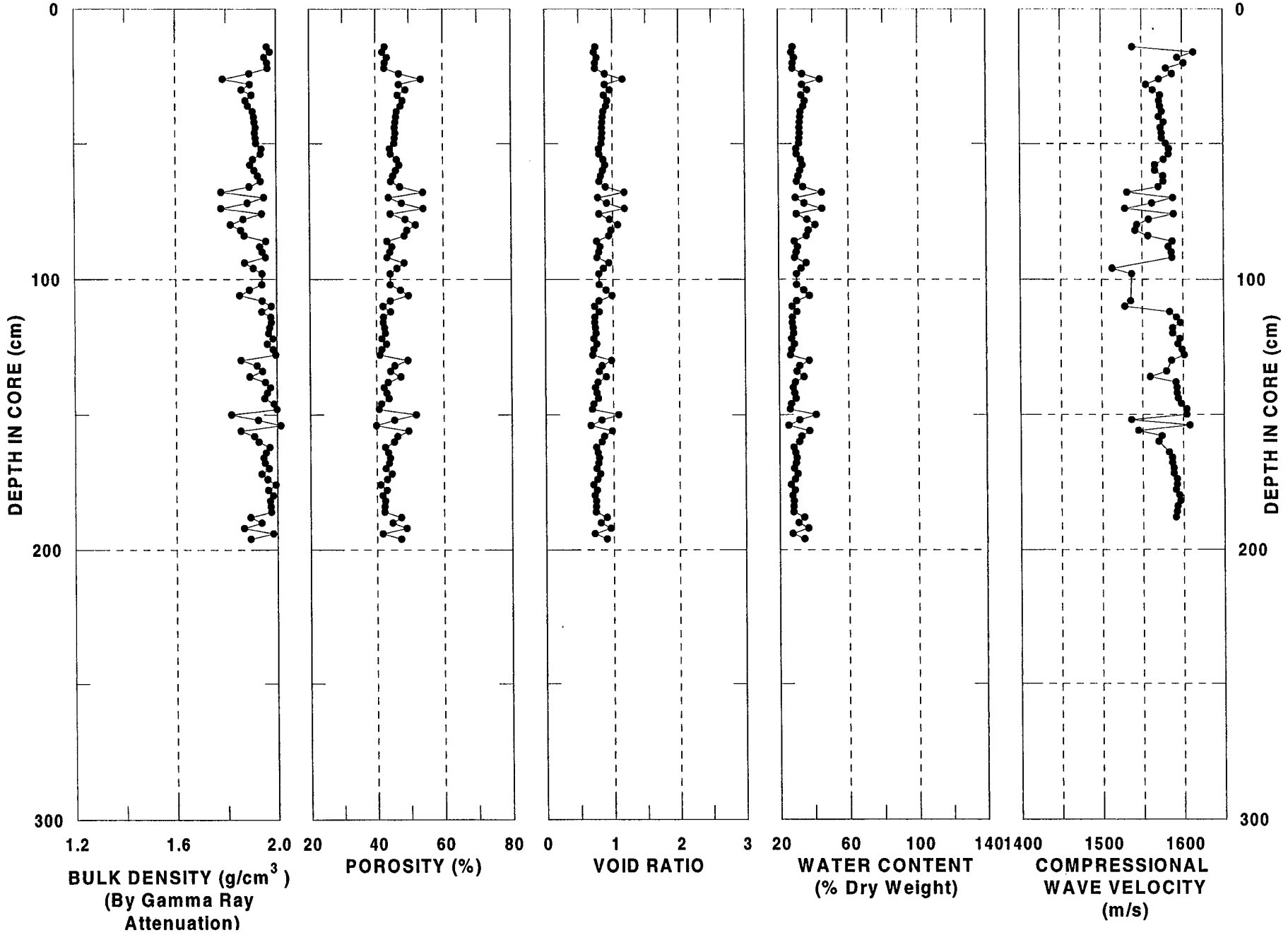
HM 63, TAMU GEOTEK LOGGER DATA



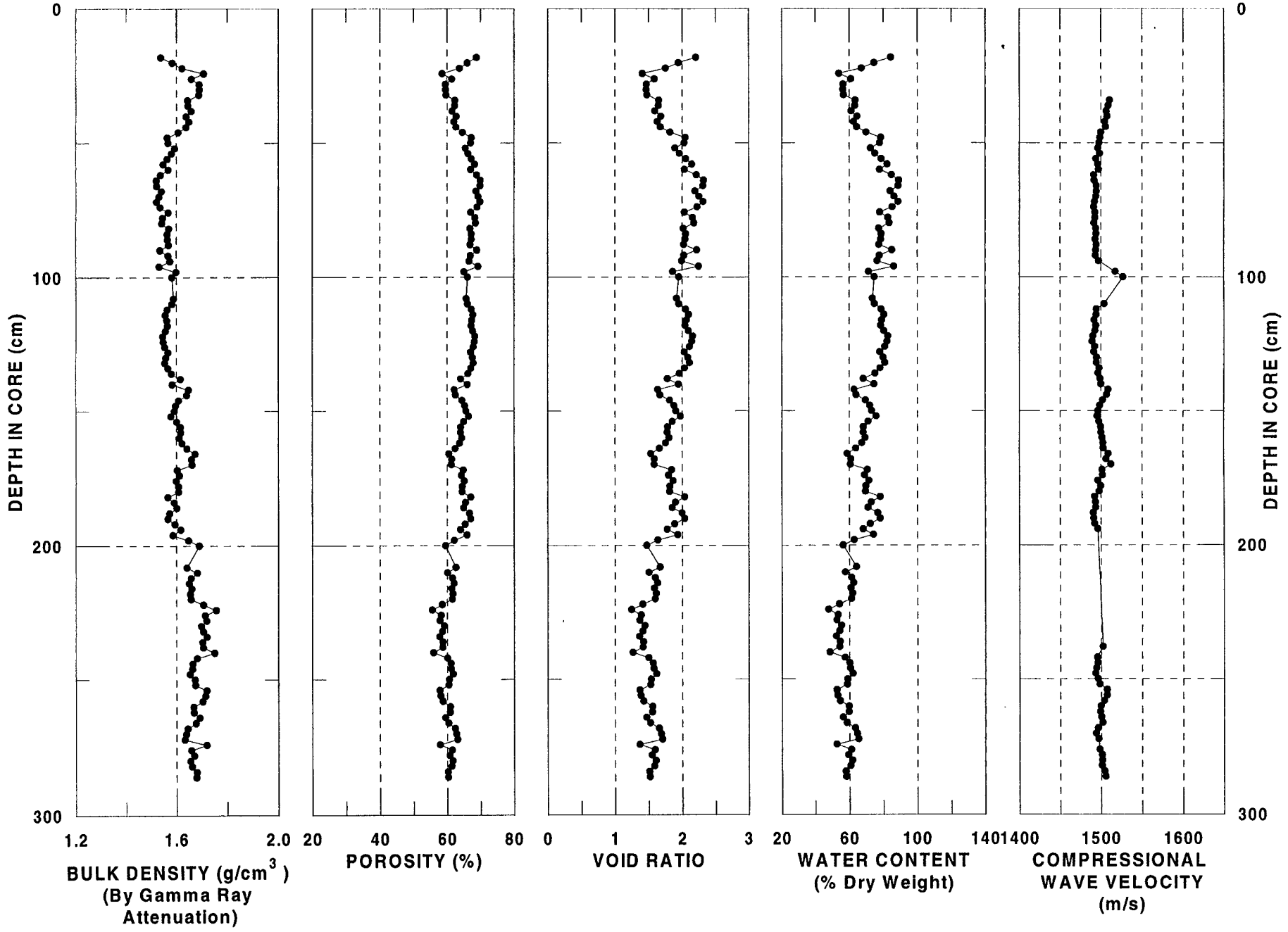
HM 64, TAMU GEOTEK LOGGER DATA



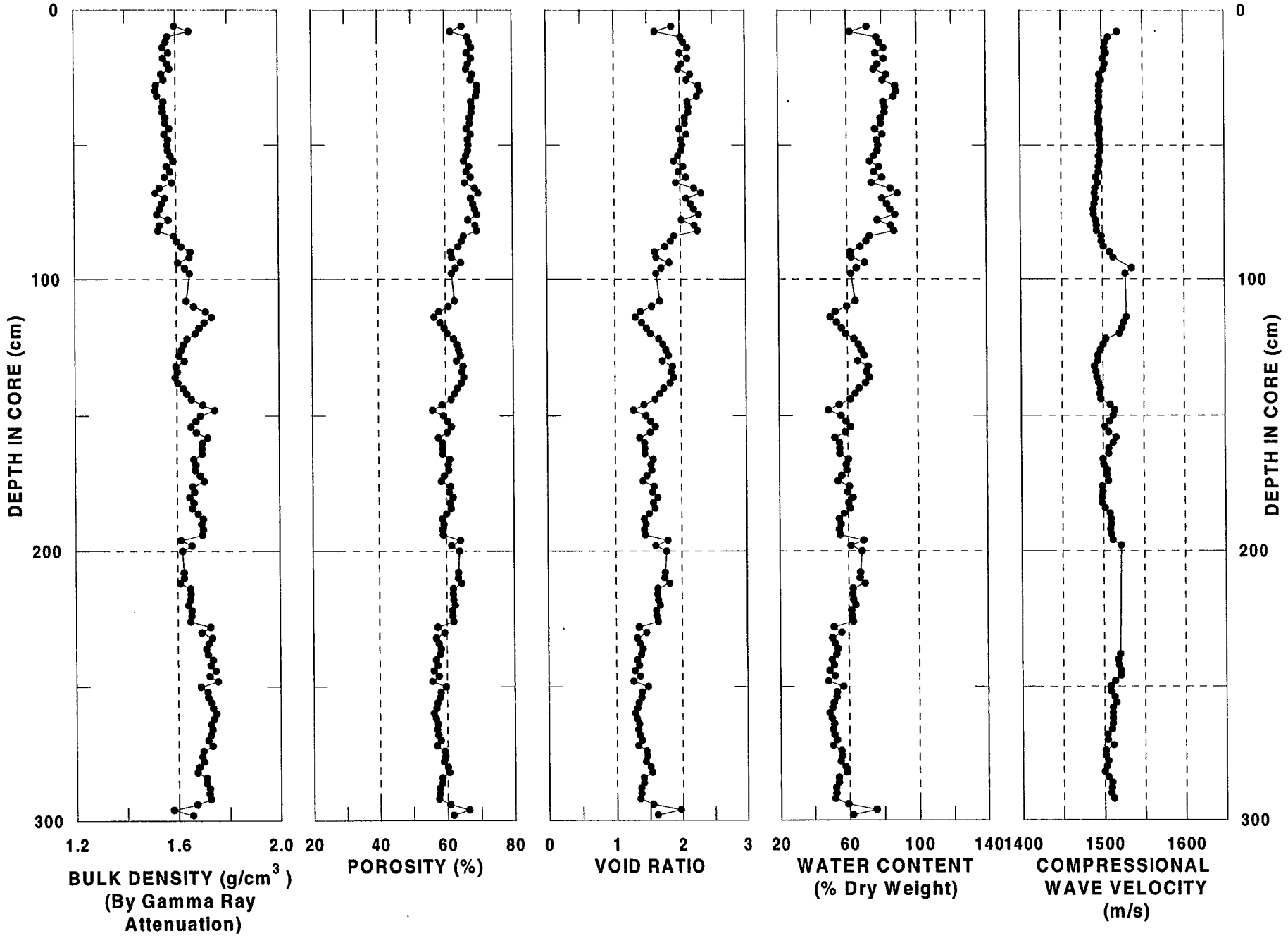
HM 65, TAMU GEOTEK LOGGER DATA



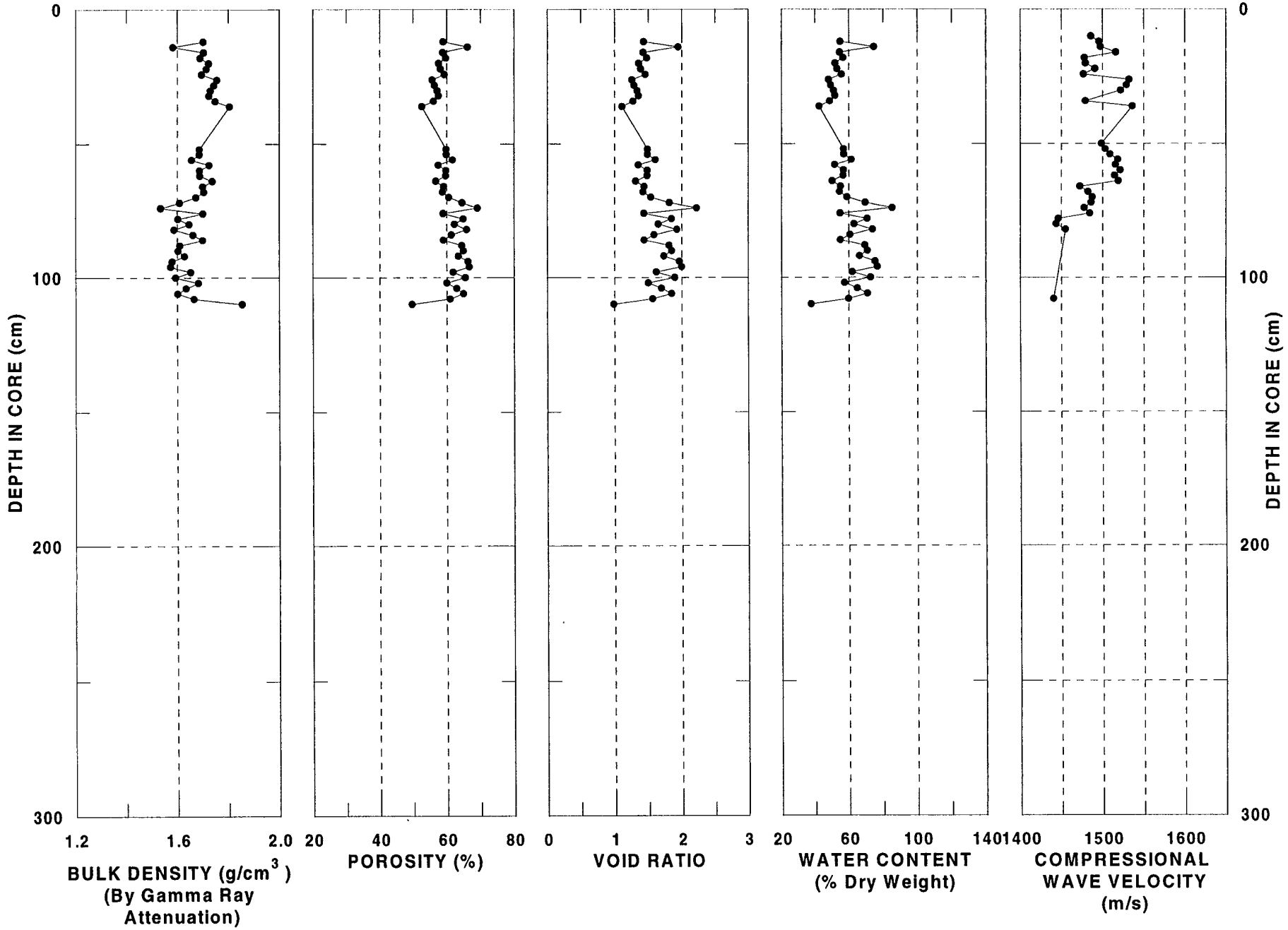
HM 68, TAMU GEOTEK LOGGER DATA



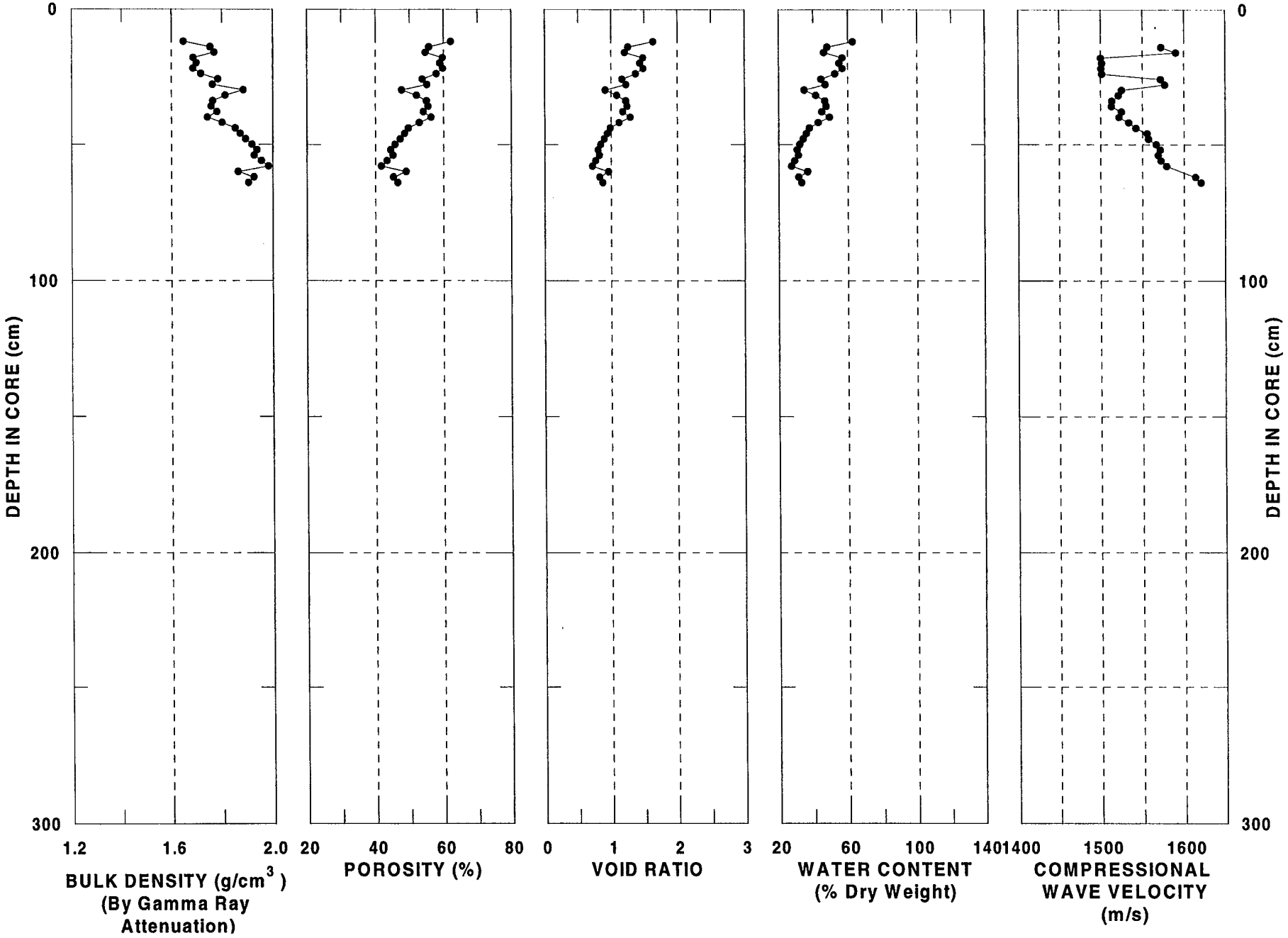
HM 69, TAMU GEOTEK LOGGER DATA



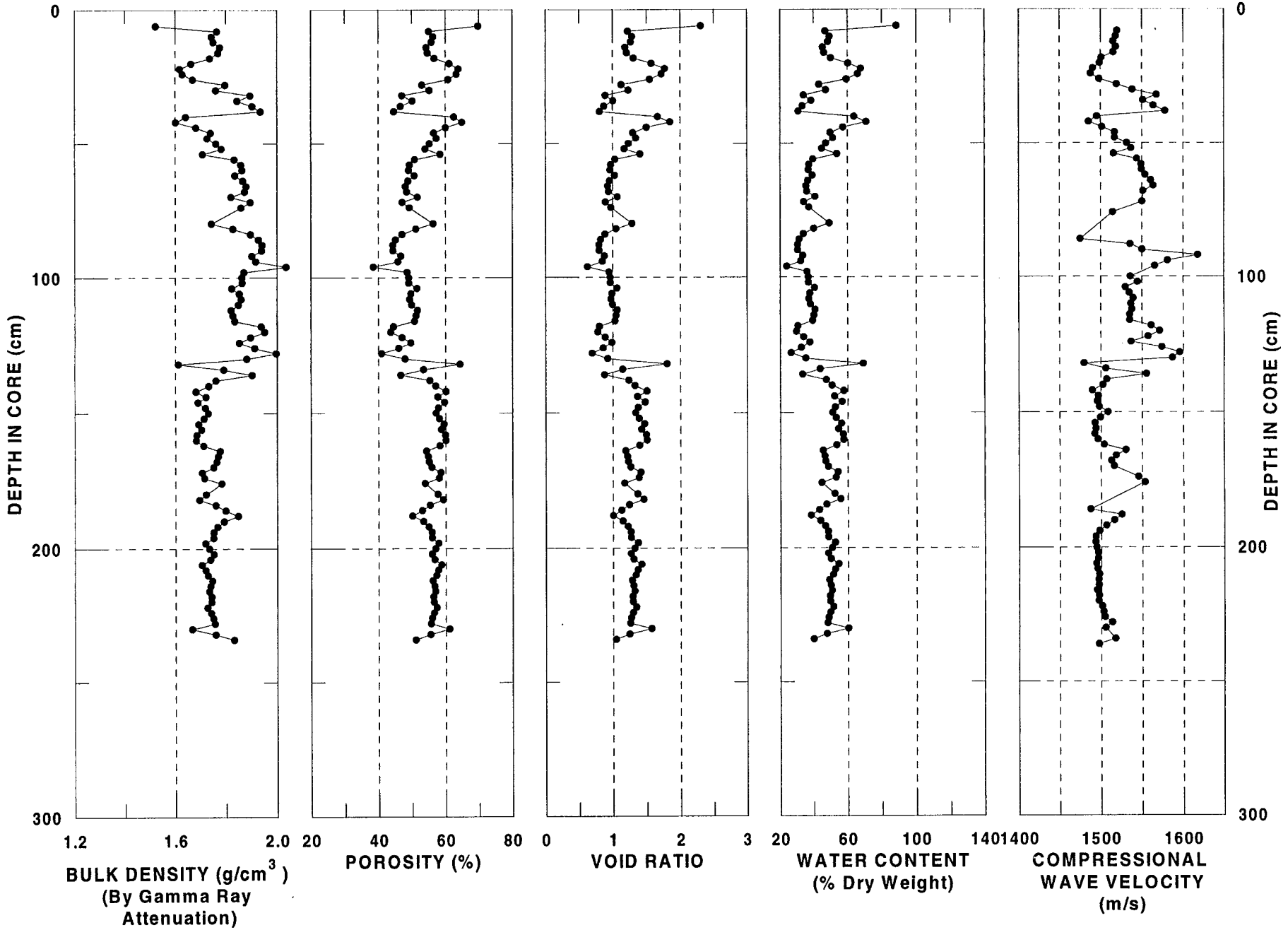
HM 72, TAMU GEOTEK LOGGER DATA



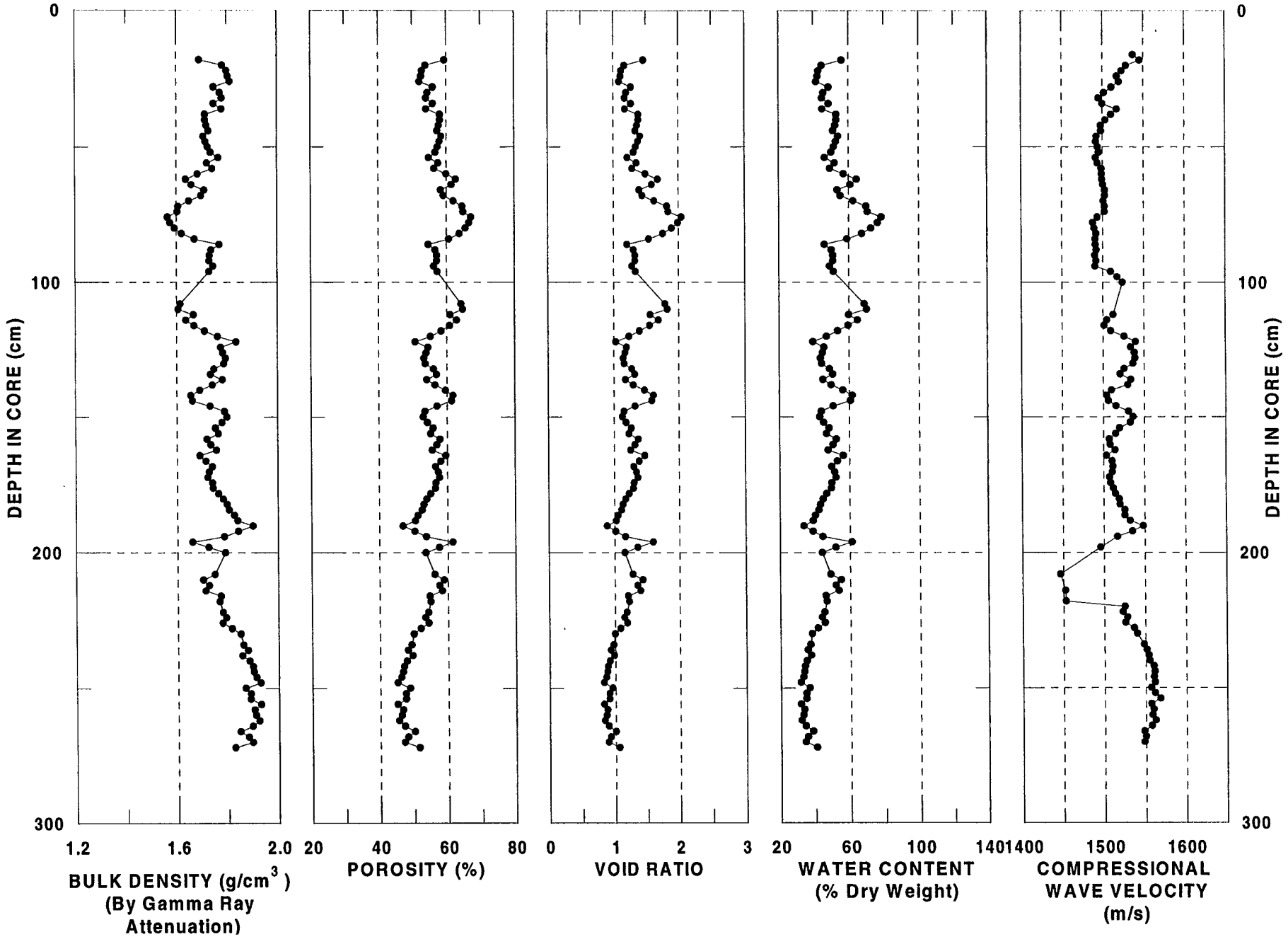
HM 73, TAMU GEOTEK LOGGER DATA



HM 74, TAMU GEOTEK LOGGER DATA



HM 75, TAMU GEOTEK LOGGER DATA



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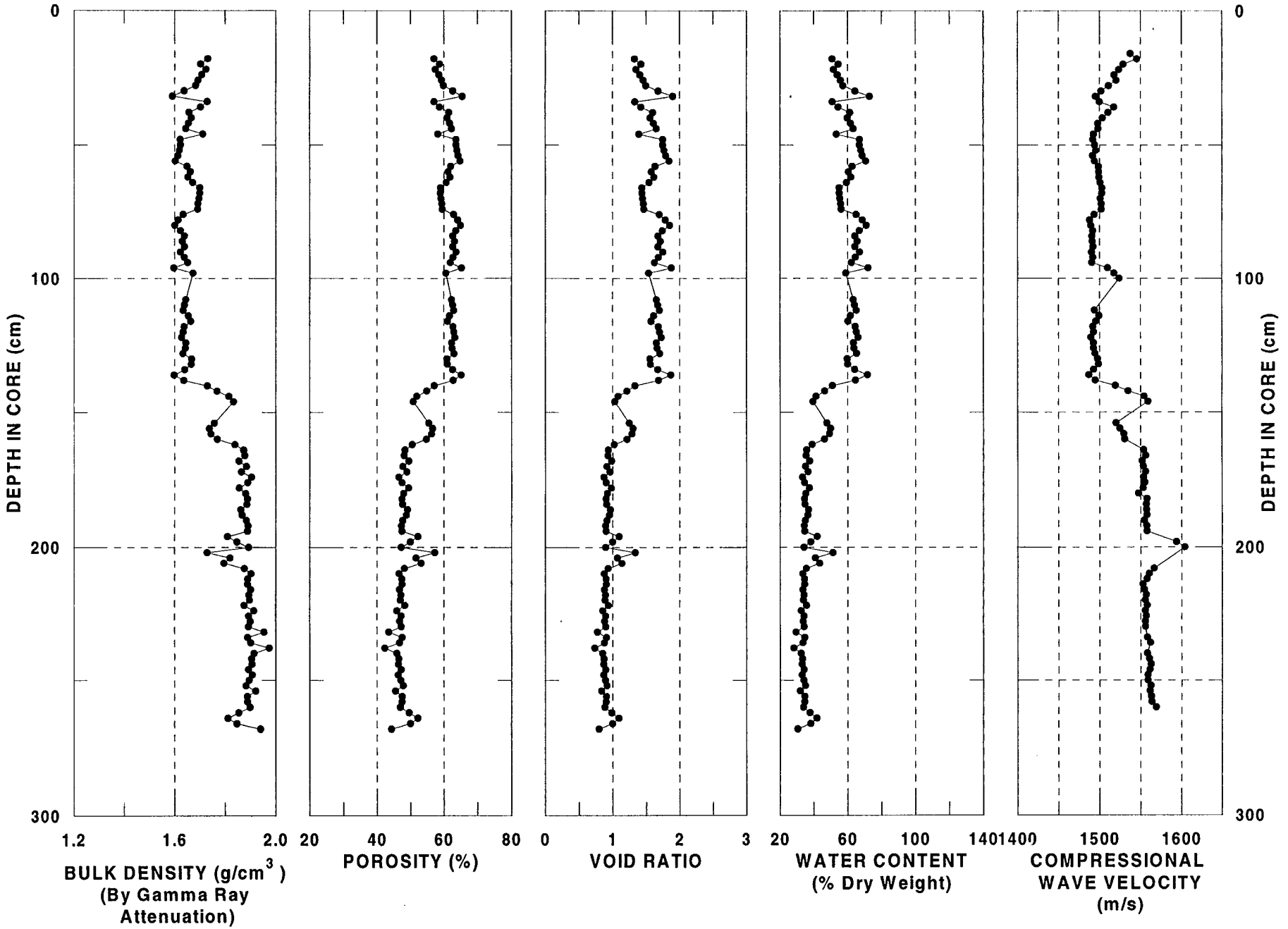

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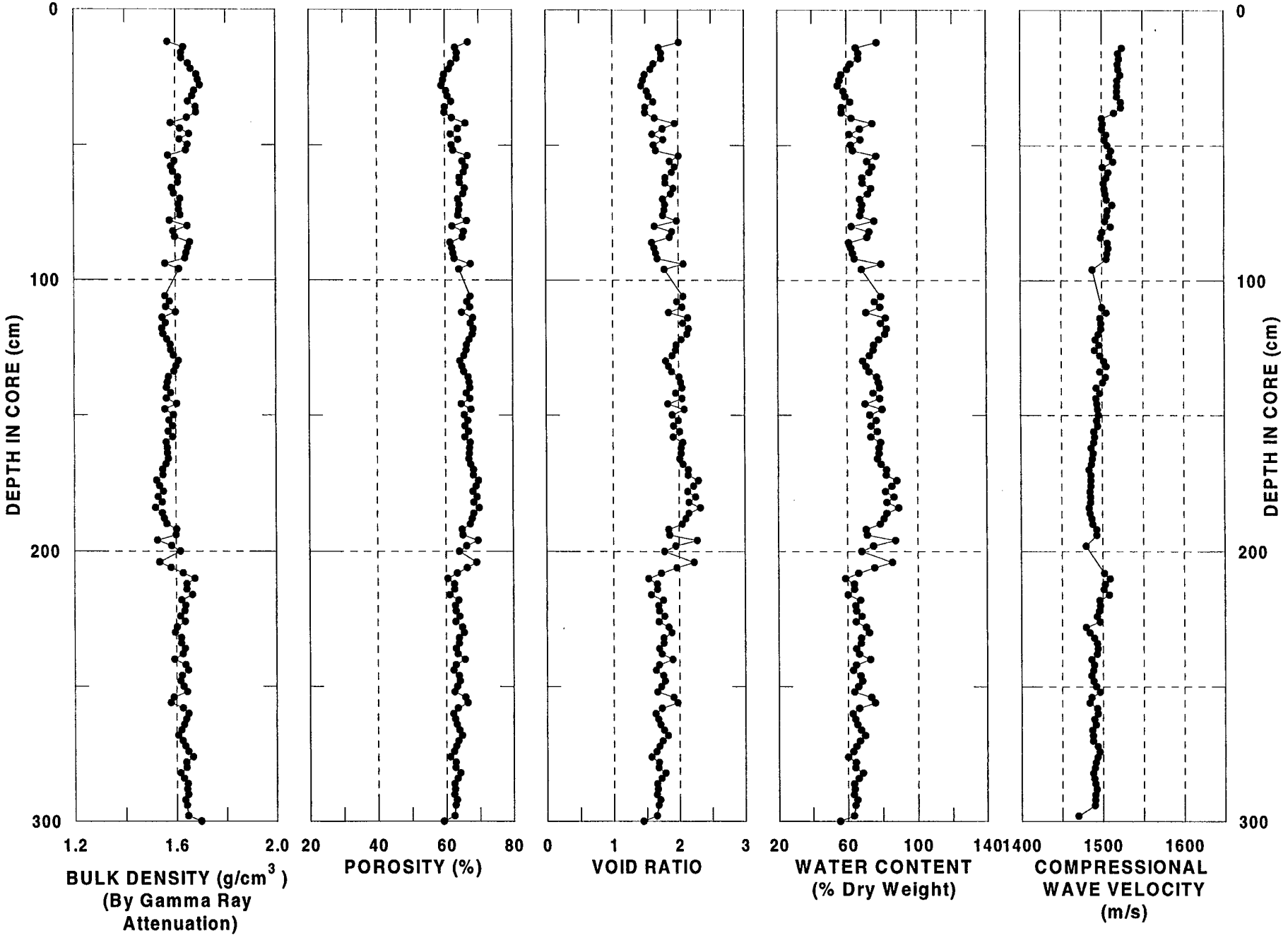
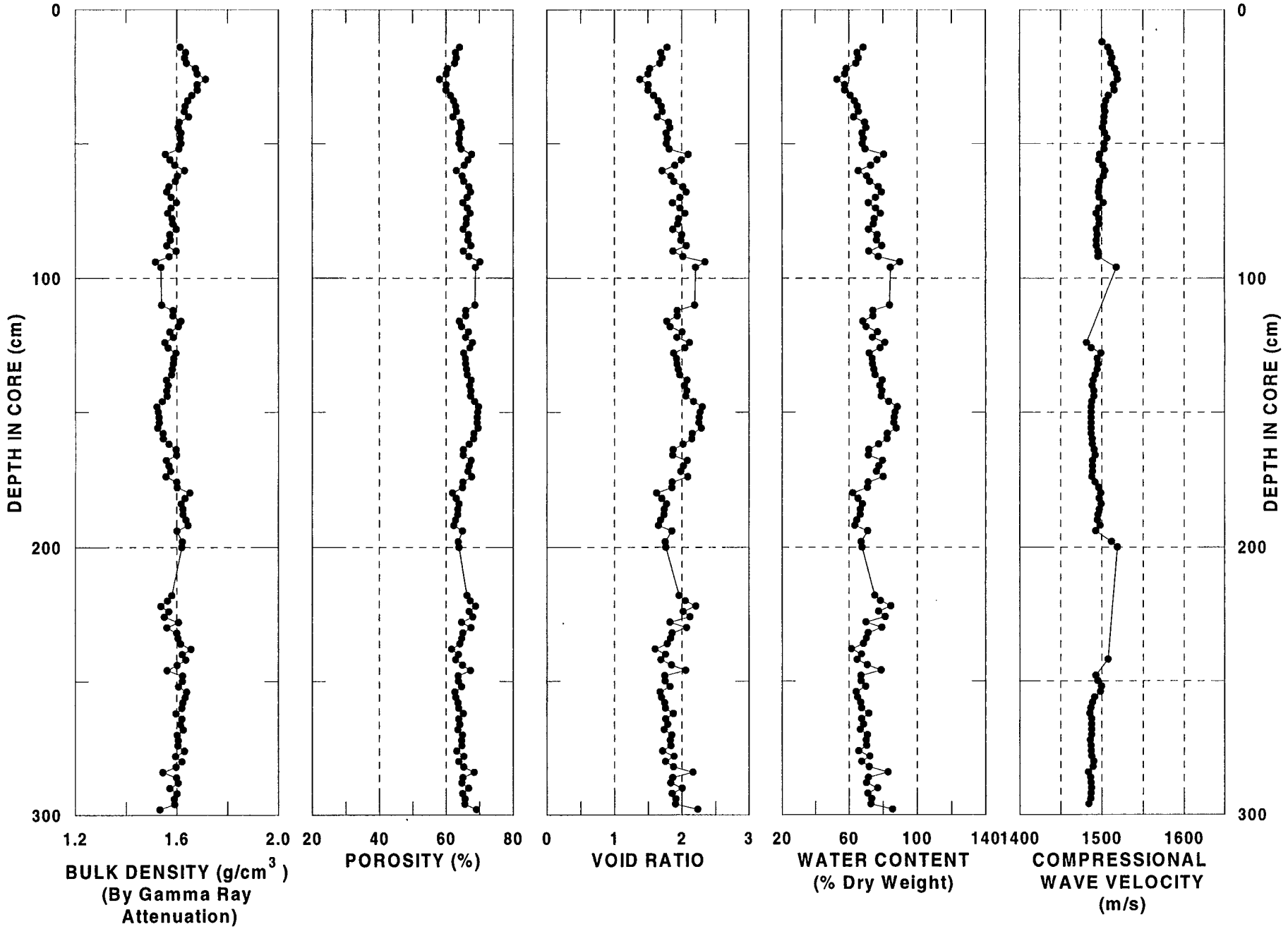
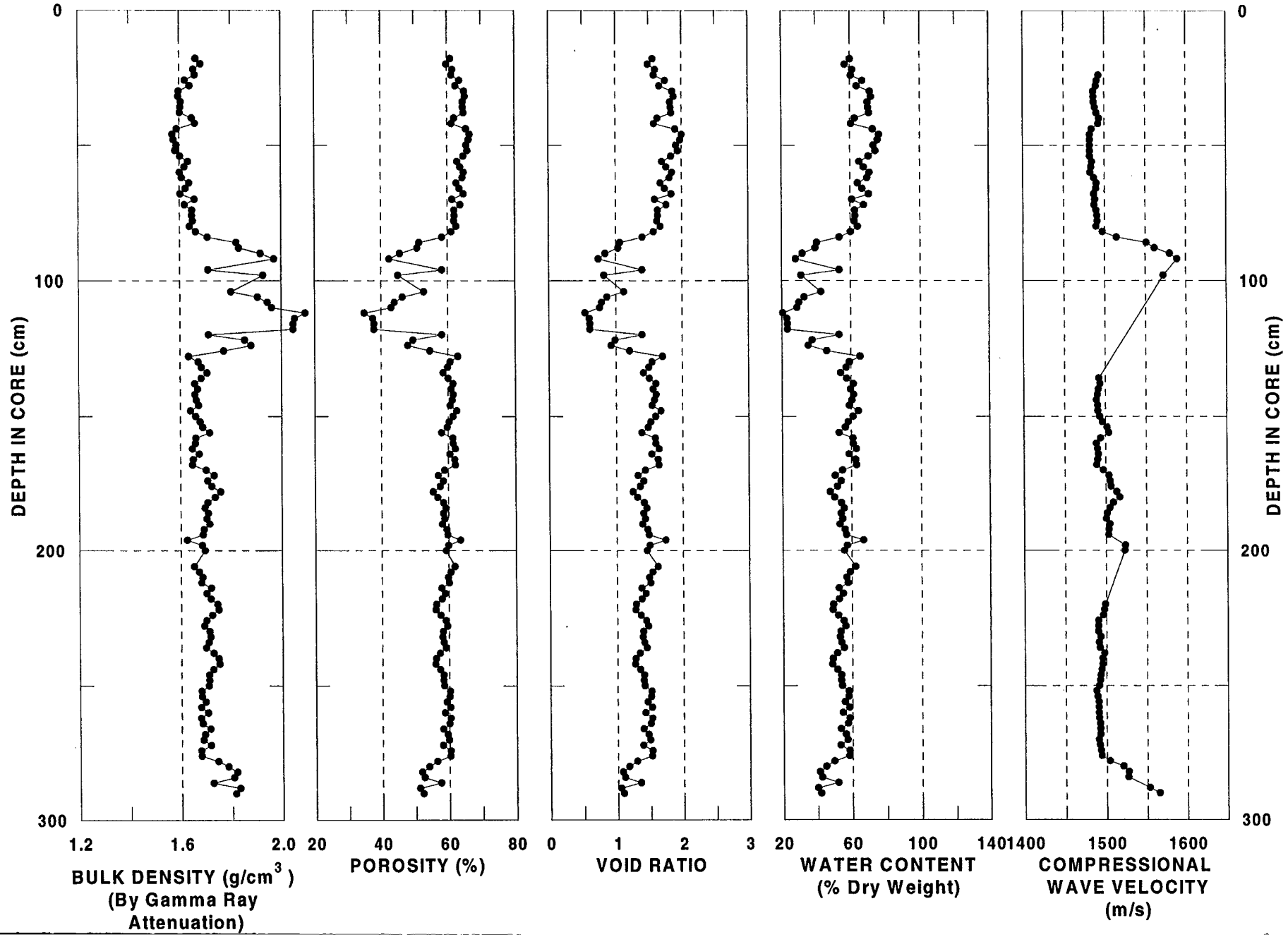


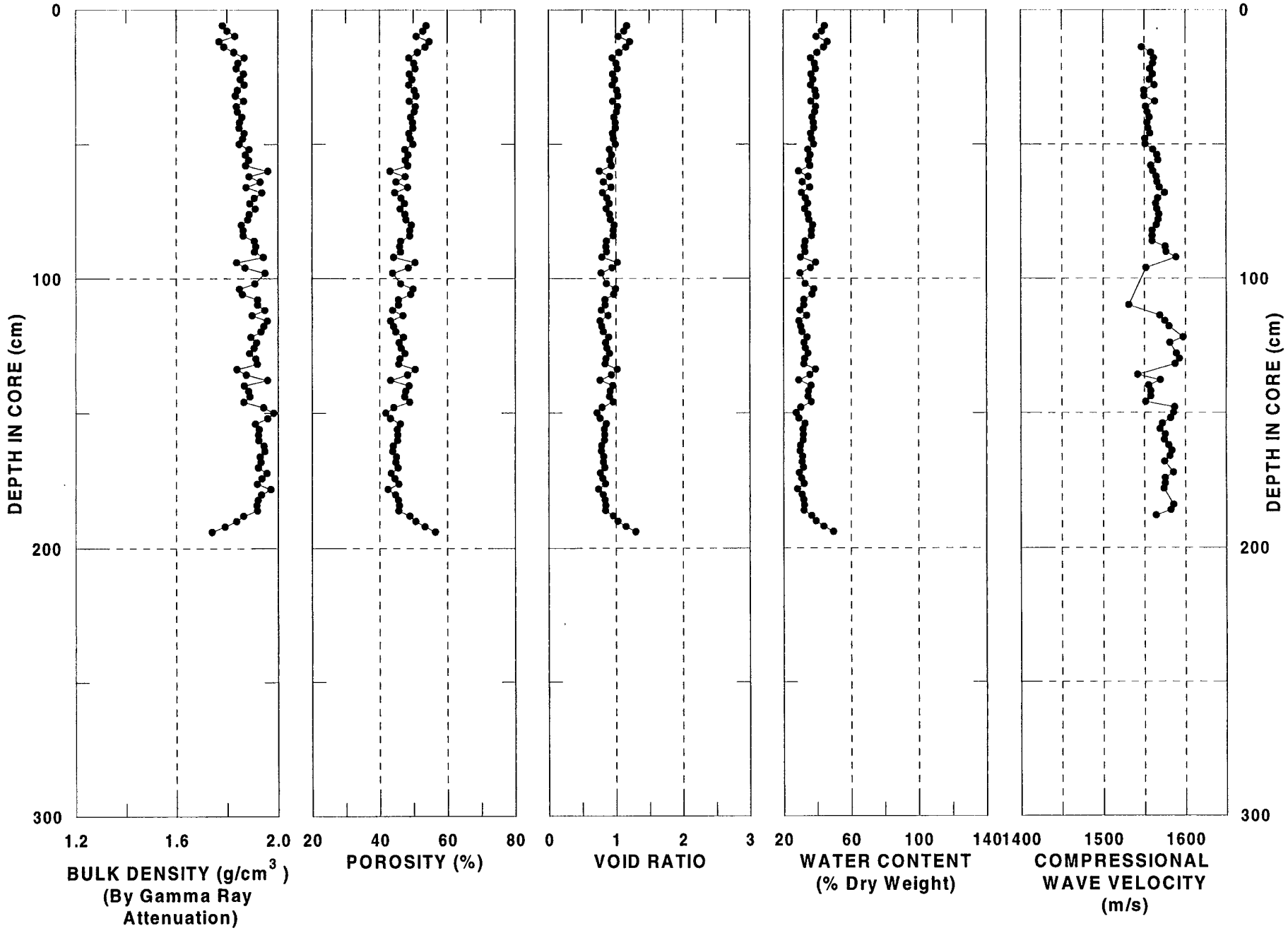
HM 80, TAMU GEOTEK LOGGER DATA



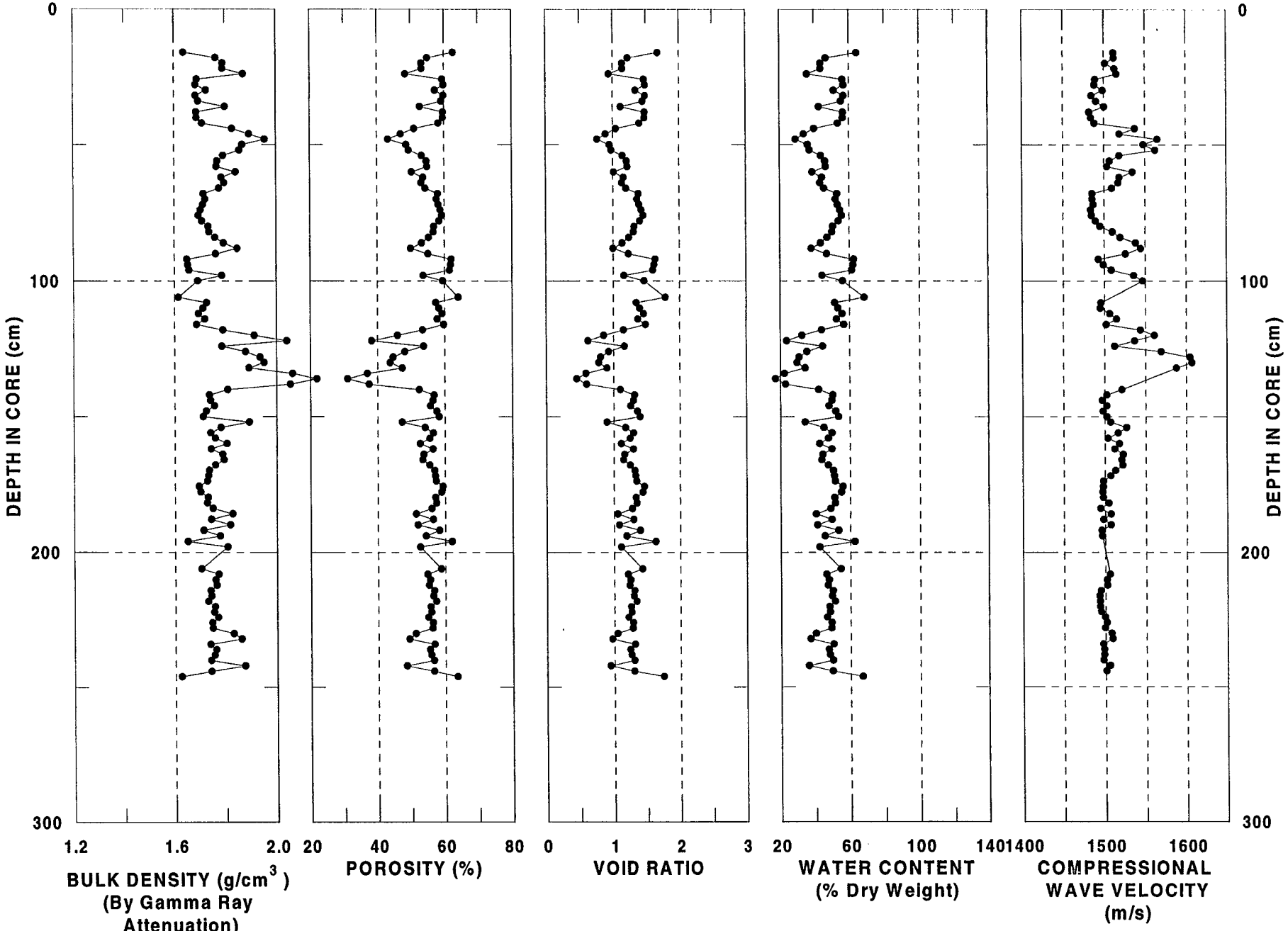
HM 81, TAMU GEOTEK LOGGER DATA



HM 86, TAMU GEOTEK LOGGER DATA



HM 87, TAMU GEOTEK LOGGER DATA



Appendix

```
* This program reads in logger generated PC file then calculate velocity,
  Boyce density, porosity, water content, and void ratio.
  Note: Need to "crush" the data file first.
        Need an input AL calibrated file "aluminum.par" with calibrated slope
        on the first line and intercept on the second line.
                                                Jia Y. Liu  8/7/96 */

 include <stdio.h>
 include <math.h>

 define buffer 3000              /* store up to 3000 records */

 define R_fc 1.128               /* Boyce density parameters */
 define R_g 2.65
 define R_f 1.024
 define R_gc 2.65

 define grain_den 2.67
 define water_den 1.024

oid main(int argc, char *argv[]) {
ILE *ifp1,*ifp2,*ofp1,*ofp2,*ofp3,*ofp4,*ofp5;

har vel_file[20],den_file[20],porosity_file[20],void_file[20],water_file[20];
nt samp_interval;
ouble temp,core_diameter;
loat liner_thickness,p_wave_offset,p_wave,gamma_count_time;
loat gamma_cycle,section_length,temperature;
nt i,depth,DBS;
loat velocity[buffer],density[buffer],boyce_den[buffer];
loat porosity[buffer],voidratio[buffer],water[buffer];
loat section_depth[buffer];
loat deviation[buffer];
ouble  travel_time[buffer];
ong gamma[buffer];
ouble C2,C1;
ouble slope,intercept;
har ch;

 /* Check if the input command is correct */
 if (argc!=3) {
    printf("\n");
    printf("This program reads in PC logger file then output velocity, Boyce de
    printf("porosity, void ratio, and water content files.\n\n");
    printf("Note: 1. You need to \"crush\" the data file before running this pr
    printf("      e.g. crush test.dat > test_new.dat\n");
    printf("      2. Need an input AL calibrated file \"aluminum.par\" with slo
    printf("      first line and intercept on the second line \n");
    printf("                                                Jia Y. Liu 8/96\n\n");
    printf("Usage: logger <input file> <length of previous sections>\n\n");
    exit(1);
 }


 /* Make sure the input file name exists */
 ifp1=fopen(argv[1],"r");
 if (ifp1==NULL) {
    printf("Cannot open input file \"%s\"!\n",argv[1]);
    exit(1);
 }
```

```
  /* Make sure the slope and intercept exists */
  ifp2=fopen("aluminum.par","r");
  if (ifp2==NULL) {
     printf("Cannot open input parameter file \"aluminum.par\"!\n",argv[1]);
     exit(1);
  }

  /* Make sure the starting depth exists */
  if (argv[2]==NULL) {
     printf("Need input the length of previous sections!\n");
     exit(1);
  }
  DBS=atoi(argv[2]);

/* Read the slope and intercept file */
 fscanf(ifp2, "%lf\n",&slope);
 fscanf(ifp2, "%lf\n",&intercept);

/* Read the header. Note: the delimiter is TAB */
 for (i=1;i<=16;i++) {
  if (i!=2 && i!=3 && i!=4 && i!=5 && i!=8 && i!=9 && i!=12 && i!=13 && i!=1
   while (fgetc(ifp1)!='\n') ;
  else {
    while (fgetc(ifp1)!='\t') ;
    fscanf(ifp1,"%lf\n",&temp);
    if (i==2)
      samp_interval=temp;
    if (i==3)
      core_diameter=temp;
    if (i==4)
      liner_thickness=temp;
    if (i==5)
      p_wave_offset=temp;
    if (i==8)
      gamma_count_time=temp;
    if (i==9)
      gamma_cycle=temp;
    if (i==12)
      p_wave=temp;
    if (i==13)
      section_length=temp;
    if (i==16)
      temperature=temp;
  }
 }

 if (p_wave!=0.) {              /* open output velocity file */
  strcpy(vel_file,argv[1]);
  strcat(vel_file,".vel");
  ofp1=fopen(vel_file,"w");
 }

 if (gamma_count_time!=0.) {    /* open output density file */
  strcpy(den_file,argv[1]);
  strcat(den_file,".den");
  ofp2=fopen(den_file,"w");
  strcpy(porosity_file,argv[1]);
  strcat(porosity_file,".por");
  ofp3=fopen(porosity_file,"w");
```

```
 strcpy(void_file,argv[1]);
 strcat(void_file,".voi");
 ofp4=fopen(void_file,"w");
 strcpy(water_file,argv[1]);
 strcat(water_file,".wat");
 ofp5=fopen(water_file,"w");
}

for (i=0;i<=(int)(section_length)+16;i++)
 fscanf(ifp1,"%f %f %lf %*f %d %*d %*d \n",&section_depth[i],&deviation[i],&tra

/* Calculate density, porosity, void ratio, and water content */
f (DBS == 0) {
  fprintf(ofp2,"Depth(cm)\tBulk density(g/cc)\n");
  fprintf(ofp3,"Depth(cm)\tPorosity (%)\n");
  fprintf(ofp4,"Depth(cm)\tVoid ratio\n");
  fprintf(ofp5,"Depth(cm)\tWater content (%)\n");
}
  for (depth=1+14/samp_interval;depth<=(int)(section_length+14)/samp_interval;d
    density[depth-14/samp_interval]=(log(gamma[depth]/(gamma_count_time*gamma_c
    boyce_den[depth-14/samp_interval]=(density[depth-14/samp_interval]-R_fc)*(R
    fprintf(ofp2,"%d\t%f\n",samp_interval*(depth-14/samp_interval)+DBS,boyce_de

    porosity[depth-14/samp_interval]=(grain_den-boyce_den[depth-14/samp_interva
    fprintf(ofp3,"%d\t%f\n",samp_interval*(depth-14/samp_interval)+DBS,porosity

    voidratio[depth-14/samp_interval]=porosity[depth-14/samp_interval]/100./(1-
    fprintf(ofp4,"%d\t%f\n",samp_interval*(depth-14/samp_interval)+DBS,voidrati

    water[depth-14/samp_interval]=(water_den/grain_den)*voidratio[depth-14/samp
    fprintf(ofp5,"%d\t%f\n",samp_interval*(depth-14/samp_interval)+DBS,water[de
  }


/* Calculate velocity */
if (p_wave!=0.) {                    /* open output velocity file */
  if (DBS == 0)
 fprintf(ofp1,"Depth(cm)\tVelocity(m/sec)\n");
  for (depth=1;depth<=(int)(section_length/samp_interval);depth++) {
    velocity[depth]=(core_diameter+deviation[depth]-2.*liner_thickness)/(travel
     fprintf(ofp1,"%d\t%f\n",samp_interval*depth+DBS,velocity[depth]);
  }
 }


/* Print out output file names */
printf("\n");
printf("The output velocity file is: \%s.vel \n",argv[1]);
printf("The output Boyce density file is: \%s.den \n",argv[1]);
printf("The output porosity file is: \%s.por \n",argv[1]);
printf("The output void ratio file is: \%s.voi \n",argv[1]);
printf("The output water content file is: \%s.wat \n\n",argv[1]);
```